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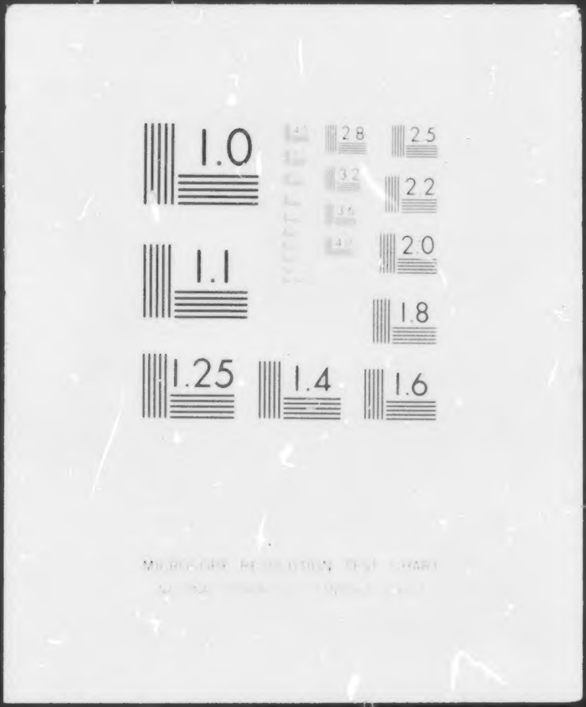
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ABSTRACT

In addition to opening remarks and a presentation on graduate education as a national resource, presentations are included on: the uses and limitations of dimensions of quality study; assessment of quality in master's degree programs; the graduate school in the university administration structure; creativity in graduate education; the uses of graduate student support funds; problems in the delivery of field-based programs; applications and limitations of Gradcost procedures; the changing role and scope of graduate school accreditation; the business meeting; the part-time graduate student; research administration issues for graduate deans; probing the master's degree; employment opportunities for Ph.D.'s in the social sciences and humanities; education and excellence; and the council's report on the Graduate Record Examination Board 1977-78 survey of graduate enrollment. The constitution and list of member institutions are also included. (MSE)

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Proceedings of the Seventeenth Annual Meeting

COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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NEW ORLEANS, LOUISIANA
November 30 - December 2, 1977
MARRIOTT HOTEL

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First Plenary Session

Wednesday, November 30, 1977, 10:30 a.m.-12:00 noon

Chairman: J. Chester McKee, Jr., *Mississippi State University*
Presentation of the Gustave O. Arlt Award in the Humanities
Guest Speaker: Norman Hackerman, *President, Rice University*

J. Chester McKee, Jr.

We would like to welcome the members and delegates of the Council of Graduate Schools in the United States to the 17th annual meeting. It is my pleasure to call this meeting to order at this time.

This year the program committee was chaired by Don White, the incoming Chairman, and Don has done a marvelous job of making some innovations. This early meeting is a little innovation in the sense that we normally start with the luncheon at which time we introduce to you the Executive Committee and present the Arlt Award. Since there will be no luncheon, we have asked the Executive Committee to sit on the platform so that they may each be introduced. The Executive Committee this year has been composed of Sanford S. Elberg as past-chairman, University of California, Berkeley; Donald J. White, Chairman-Elect, Boston College; Joe N. Gerber, Stephen F. Austin State University; Eastman N. Hatch, Utah State University; J. Knox Jones, Jr., Texas Tech University; Robert Kruh, Kansas State University; Michael J. Pelczar, Jr., University of Maryland; Margaret N. Perry, University of Tennessee, Knoxville; Oscar A. Rogers, Jr., Jackson State University; and Daniel J. Zaffarano, Iowa State University. Our President and *ex officio* member of the Executive Committee is J. Boyd Page, and our Assistant to the President is John Ryan.

Our next event of this meeting is my pleasure in presenting this year's recipient of the Gustave O. Arlt Award in the Humanities. The recipient is Dr. William A. Wilson, Associate Professor of English at Brigham Young University. This annual award is being made to Dr. Wilson in recognition of his book entitled *Folklore and Nationalism in Modern Finland*. Dr. Wilson's work was published in 1976 by the Indiana University Press.

The Gustave O. Arlt Award in the Humanities is given to a young scholar, teaching in the humanities at an American university, who has earned a doctorate within the past five years and has published a book deemed to be of outstanding scholarly significance. Previous awards have been made in the fields of English, History, Linguistics, Modern Foreign Language and Philosophy.

Dr. Wilson was born in Fremont, Utah, and received his Ph.D. from the University of Indiana in 1974. In addition to teaching courses in folklore and English, Dr. Wilson also teaches a class in Finnish literature wherein the students read the material in the original language. As an additional honor, Dr. Wilson won second prize in the 1977 University of Chicago folklore competition for the same book, *Folklore and Nationalism in Modern Finland*.

That which cannot be stated in statistics, lists and other notices is Dr. Wilson's great love of his subject, and the students who work under him. Although he is one of the most demanding teachers on the Brigham Young faculty, he is still one of the most popular because his students sense that he is interested in them and in their experiencing the joy of folklore that he feels. His guidance of young people is at least as important as his excellent scholarship.

Dr. Wilson, would you please come forward to receive the award. The Council is honored to present an award reading, "The Council of Graduate Schools in the United States, the Gustave O. Arlt Award in the Humanities awarded to William A. Wilson, Brigham Young University, in New Orleans, Louisiana, November 30, 1977." Not the least part of this award is a check to you that we are sure you can use.

William A. Wilson

Thank you very much. After the initial shock of the announcement wore off, I felt the strongest feeling of gratitude. I am very grateful to this organization for furthering research and scholarship by granting an award such as this. I am grateful to all of those people throughout the years who have helped me along the way and without whose aid this publication would not have come into being. And finally to the extent that the book is a result of the intercreative talents of mine, I am grateful to the Creator for those talents. I hope that I will always use them well.

Thank you all for making this a good day.

J. Chester McKee, Jr.

This award is named in honor of Dr. Arlt, a distinguished humanist and first President of the Council of Graduate Schools. Dr. Arlt was formerly chairman of the department of Germanic languages and now holds the title of Dean Emeritus of the Graduate School at UCLA. We are very happy to have Gus with us this morning and always look forward to his making a few remarks and letting us know what area he would suggest the award be in next year. Gus.

Gustave O. Arlt

Mr. Chairman, Mr. President, distinguished guests, and my friends out in the audience, I never know exactly these days how to address this audience. You are no longer fellow deans of mine, and no longer constituents of mine but I hope you will always be my friends. When the Gustave O. Arlt Award was first established, I was asked to designate the field in which the award was to be given each year. Of course, my inclination at the beginning was to choose the field or fields in which I had scholarly interests throughout my career. The first one of these would have been folklore and the second one would have been Germanic languages. But then, of course, I thought this is a self-seeking matter and therefore I chose the field of English the first year and history the second year. Now having come down the line six years, I thought folklore was the appropriate one. I can't tell you how pleased I am at the selection that has been made by the committee which selects the recipient.

Dr. Wilson's career is that of a typical folklorist. It began with his very first publication on the topic of "Herder and Nationalism in Folklore" and that is exactly where I would have started. I won't tell you how many years ago. Herder was the first great folklorist, German scholar and writer, and from there, Dr. Wilson concentrated on the general field of folklore specializing more or less in the nationalistic aspects of folklore, particularly Finnish folklore, which had been neglected considerably. It is a great pleasure for me to have this award go to a man who is eminently qualified, and who has shown great interest and great ability in the field of folklore.

Dr. Wilson, it is my great pleasure once more to congratulate you and to say I couldn't be happier than I am about this selection. I also want to thank the Council of Graduate Schools for maintaining this annual award and I hope it will continue as long as the Council exists and that is forever because there will always be a Council of Graduate Schools as there will always be an England.

As for next year, my choice is the field of archeology which I believe is an important field and a field which is both very great and meaningful at the present time. Thus, I recommend to the Executive Committee that the field of archeology be chosen for next year. I thank you for giving me the opportunity to say a few words.

J. Chester McKee, Jr.

Our speaker is President of an outstanding university, Rice University, a position he has held since 1970 when he moved there from the presidency of the University of Texas. Prior to becoming President at the University of Texas he served the University as Professor of Chemistry, Chairman of the Chemistry Department, Dean of Research and Sponsored Programs, Vice President and Provost and Vice Chancellor of Academic Affairs. He was born in Baltimore, Maryland, and received the A.B. and Ph.D. degrees from Johns Hopkins. He holds honorary doctorates from Saint Edward's University and Austin College. Our speaker is an elected member of the National Academy of Sciences and the American Philosophical Society as well as many other important societies. In his current role as member and chairman of the National Science Board and member and chairman of the Board of Energy Studies with the National Academy of Sciences, National Research Council, Dr. Hackerman is intimately familiar with the current status and planning of national research policies. He has made distinct contributions to graduate education in many ways, in particular serving as a member of the National Board of Graduate Education when it was in existence. He also holds a number of outstanding scientific awards. It is a real honor to present to you Dr. Norman Hackerman, President of Rice University. Dr. Hackerman.

Is Graduate Education a National Resource?

Norman Hackerman

Ladies and gentleman, I am delighted to have an opportunity to speak to the Council of Graduate Schools. I have always been interested and involved in graduate education and indeed currently have four graduate students who I'm hopeful will come out at the rate of one a year for the next four years. I have always looked upon graduate education as an integral part of the higher educational system and that is basically what I want to talk about. I want to do it with evidential material.

The title is designed mainly to catch your attention since it seems obvious to me that graduate education is a national resource. There isn't any question about it, but you and I are prejudiced and what we believe may not be persuasive without real evidence. If one asks a similar question of the general public you will get some blank stares, but by and large the response will be "of course it is."

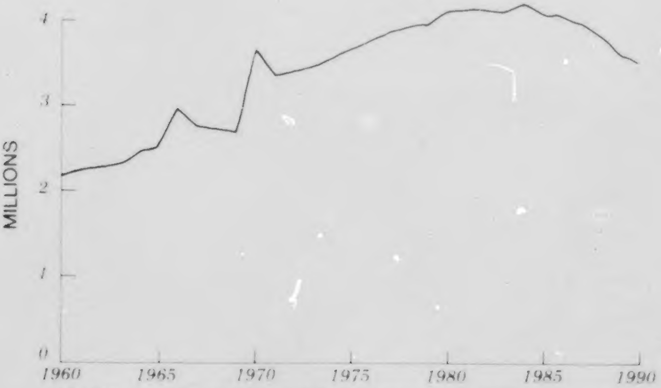
There is a second question that should be asked, "Can graduate education be done in other ways than we now do it?" I would have to answer, "of course it can." We would be very short-sighted if we insisted that the current method is the only way to provide for post-16th grade education. The question perhaps should be: Is it in the nation's best interest to have it done some other way? The answer to that is, "of course it is if the other way is better." And the conclusion to that little series of questions then is we, you and I and all of our colleagues, must make graduate education as now practiced as good as possible. Not for us, which may be one of our problems, but for the nation. This is without regard to whether the activity takes place in a publicly supported institution, an independent institution, or any combination.

To examine the questions a little more carefully, I think it may be worthwile to look at the components of the system. This is not an exhaustive list of components but the principal ones. These are the reservoir, the support, and the excitement. I use "excitement" to cover almost anything in the field of learning in the graduate area. In other words, it is new discovery, new understanding, new ideas, great books, a clear perception of our ignorance, and so on. There will be data on the reservoir and on the support, but the excitement will be discussed more subjectively.

First, let me point out to you that at no time in the past, and with little indication of upward change in the future, have there been more than 50 percent of the 18 year old cohort go on to college. Indeed it approached 50 percent and has been receding in recent years. That obviously is of some importance to us since it is from this group that we get our graduate students. Second, the composition of the undergraduate student body is changing to more part-time, odd-time students, and fewer full-time standard type of undergraduate students. This also has to have its influence on the graduate school of the near and far future.

TABLE I

Numbers of 23-Year-Old[illegible] 1960-90



SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

The first of the illustrations gives us an idea of the number of 23 year olds who will be available. This is just about the right age for the characteristic group that came to graduate school over the period for which we know the answer. There is no guess work here and these are not projections. To that extent you can see that the numbers of 23 year olds will peak in about 1984, and from there on will start down for at least the next fifteen years.

TABLE II

Total Graduate Degree-Credit Enrollment And Number of 23-To 29-Year-Olds: 1963-74

YEAR	TOTAL GRADUATE DEGREE-CREDIT ENROLLMENT (THOUSANDS)	23-TO 29-YEAR-OLDS (THOUSANDS)	TOTAL GRADUATE DEGREE CREDIT ENROLLMENT AS PERCENT OF POPULATION AGE 23-29
1963	521	15,606	3.3
1964	608	15,987	3.8
1965	697	16,454	4.2
1966	768	17,281	4.4
1967	849	17,905	4.7
1968	885	18,408	4.8
1969	955	18,825	5.1
1970	1,031	20,207	5.1
1971	1,012	21,233	4.8
1972	1,066	22,089	4.8
1973	1,123	22,561	5.0
1974	1,190	23,334	5.1

SOURCES: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1983-84 and Projections of Education Statistics to 1984-85*. U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 519 and 614.

The next illustration shows the percentage of 23-29 year olds who enrolled for graduate degree credit over a recent twelve-year span. The best number you can pick out of the last column suggests that about 5 percent of that cohort will go on to graduate school. There is no reason not to believe that that 5 percent will persist and the reason to believe that it will is that it has done so for the past five years. These data give us a sense of the available reservoir.

The next illustration shows attendance at graduate school by status—the full-time and the part-time distribution. It is interesting that from 1963 to 1975 the part-time students as percent of total enrollment has remained pretty constant.

TABLE III

Total Graduate Degree-Credit Enrollment by Attendance Status, 1963-1975

Graduate degree-credit enrollment (Thousands)				Part-time students as percent of total enrollments
Year	Total	Full-time	Part-time	
1963	521	188	333	63.9
1964	608	221	387	63.7
1965	697	256	441	63.3
1966	768	285	483	62.9
1967	849	317	532	62.7
1968	885	337	548	61.9
1969	955	364	591	61.9
1970	1,031	379	652	63.2
1971	1,012	388	624	61.7
1972	1,066	393	673	63.1
1973	1,123	409	714	63.6
1974	1,190	428	762	64.0
1975	1,263	453	810	64.1

1. Data are NCES estimates.

Note: Data are for 50 States and the District of Columbia for all years. Because of rounding, details may not add to totals.

Source: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1983-84 and Projections of Education Statistics to 1985-86.*

The next illustration shows the same information by sex as well as status.

TABLE IV

Graduate Degree-Credit Enrollment by Sex and Attendance Status of Student, 1971-1975

(Thousands)

Year	Graduate degree-credit enrollment							
	Men		Part-time		Women		Part-time	
	Total	Full-time	Number	Percent	Total	Full-time	Number	Percent
1971	615	269	346	56.3	397	119	277	69.8
1972	627	268	359	57.3	439	126	313	71.3
1973	647	272	375	58.0	476	137	340	71.4
1974	663	276	387	58.4	527	152	375	71.2
1975	700	290	410	58.6	563	163	401	71.2
Percent change 1971-1975	+13.8	+7.8	+18.5	-	+41.8	+37.0	+44.8	

Note: Data are for 50 States and the District of Columbia. Because of rounding, details may not add to totals.

Source: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Educational Statistics to 1985-86* and *Fall Enrollment in Higher Education*, annual series.

Here you can see that the percentage of women has increased as all of us are aware of by now. Next we see the number of master's degrees in all fields and those in natural and social science and engineering.

TABLE V

Proportion Of Master's Degrees Granted In Science And Engineering, 1953-54 To 1975-76

The number of master's degrees in science and engineering fields in 1975-76 is the greatest yet observed, however, science and engineering degrees as a percent of all degrees at this level continue to decline from the high point reached in 1964-65.

The 1975-76 number of master's degrees in the social sciences represents a new high. The peak year for master's degrees in engineering was 1971-72; for the natural sciences the peak year was 1973-74.

Year	Total degrees all fields	Degrees in science and engineering		Degrees in natural sciences		Degrees in social sciences		Degrees in engineering	
		Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
1953-54	56,823	13,399	23.6	6,087	10.7	3,108	5.5	4,204	7.4
1954-55	58,204	13,989	24.0	6,395	11.0	3,110	5.3	4,484	7.7
1955-56	59,294	14,061	23.7	6,420	10.8	2,917	4.9	4.724	8.0
1956-57	61,955	15,205	24.5	6,688	10.8	3,284	5.3	5,233	8.4
1957-58	65,614	16,840	25.7	7,447	11.3	3,605	5.5	5,788	8.8
1958-59	69,497	18,682	26.9	8,215	11.8	3,714	5.3	6,753	9.7
1959-60	74,497	20,012	26.9	8,903	12.0	3,950	5.3	7,159	9.6
1960-61	78,269	22,786	29.1	10,122	12.9	4,486	5.7	8,178	10.4
1961-62	84,889	25,146	29.6	11,281	13.3	4,956	5.8	8,909	10.5
1962-63	91,418	27,367	29.9	12,173	13.3	5,559	6.1	9,635	10.5
1963-64	101,122	30,271	29.9	13,527	13.4	5,917	5.9	10,827	10.7
1964-65	112,195	33,835	30.2	15,190	13.5	6,589	5.9	12,056	10.7
1965-66	140,772	38,083	27.1	16,668	11.8	7,737	5.5	13,678	9.7
1966-67	157,892	41,800	26.5	18,610	11.8	9,305	5.9	13,885	8.8
1967-68	177,150	45,425	25.6	19,904	11.2	10,333	5.8	15,188	8.6
1968-69	194,414	48,425	24.9	21,455	11.0	11,727	6.0	15,243	7.8
1969-70	209,387	49,318	23.6	21,638	10.3	12,083	5.8	15,597	7.4
1970-71	231,486	50,624	21.9	21,495	9.3	12,782	5.5	16,347	7.1
1971-72	252,774	53,567	21.2	22,407	8.9	14,358	5.7	16,802	6.6
1972-73	264,525	54,234	20.5	22,500	8.5	14,976	5.7	16,758	6.3
1973-74	278,259	54,175	19.5	22,808	8.2	15,974	5.7	15,393	5.5
1974-75	293,651	53,852	18.3	22,085	7.5	16,333	5.6	15,434	5.3
1975-76	313,001	54,757	17.5	21,774	7.0	16,813	5.4	16,170	5.2

Source: National Center for Education Statistics, *Earned Degrees Conferred*, annual series.

You see the increase from 57,000 to 313,000 over a span of twenty-two years, a sizeable increase. I am not sure that everybody is really aware of the size of the enterprise as contrasted to what it was in the quieter days of the early 50's.

The next table gives similar information for doctorates.

TABLE VI

Proportion Of Doctor's Degrees Granted in Science and Engineering, 1953-54 To 1975-76

In 1975-76 just over one-half of all doctorates were in science and engineering fields. (Science and engineering degrees comprise about three-tenths of all bachelor's and first-professional degrees and less than one-sixth of all master's degrees).

The proportion of all doctorates in the social sciences increased while the proportion in the natural sciences and engineering decreased.

Year	Total degrees all fields	Degrees in science and engineering		Degrees in natural sciences		Degrees in social sciences		Degrees in engineering	
		Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
1953-54	8,996	5,433	60.4	3,541	39.4	1,298	14.4	594	6.6
1954-55	8,840	5,436	61.5	3,468	39.2	1,369	15.5	599	6.8
1955-56	8,903	5,327	59.8	3,306	37.1	1,411	15.8	610	6.9
1956-57	8,756	5,233	59.8	3,372	38.5	1,265	14.4	596	6.8
1957-58	8,942	5,353	59.9	3,367	37.7	1,339	15.0	647	7.2
1958-59	9,360	5,635	60.2	3,521	37.6	1,400	15.0	714	7.6
1959-60	9,829	6,056	61.6	3,788	38.5	1,482	15.1	786	8.0
1960-61	10,575	6,531	61.8	3,981	37.6	1,607	15.2	943	8.9
1961-62	11,622	7,249	62.4	4,322	37.2	1,720	14.8	1,207	10.4
1962-63	12,822	8,055	62.8	4,778	37.3	1,899	14.8	1,378	10.7
1963-64	14,490	9,025	62.3	5,232	36.1	2,100	14.5	1,693	11.7
1964-65	16,467	10,252	62.3	5,991	36.4	2,137	13.0	2,124	12.9
1965-66	18,239	11,298	61.9	6,542	35.9	2,452	13.4	2,304	12.6
1966-67	20,621	12,759	61.9	7,232	35.1	2,913	14.1	2,614	12.7
1967-68	23,091	14,128	61.2	8,021	34.7	3,175	13.7	2,932	12.7
1968-69	26,189	15,839	60.5	8,799	33.6	3,663	14.0	3,377	12.9
1969-70	29,872	17,639	59.0	9,787	32.8	4,171	14.0	3,681	12.3
1970-71	32,113	18,466	57.5	10,252	31.9	4,560	14.2	3,654	11.4
1971-72	33,369	18,412	55.2	9,876	29.6	4,832	14.5	3,704	11.1
1972-73	34,790	18,598	53.5	9,804	28.2	5,234	15.0	3,560	10.2
1973-74	33,826	17,865	52.8	9,080	26.8	5,449	16.1	3,336	9.9
1974-75	34,086	17,784	52.2	9,068	26.6	5,565	16.3	3,151	9.2
1975-76	34,076	17,288	50.7	8,736	25.6	5,717	16.8	2,835	8.3

Source: National Center for Education Statistics, DHEW, *Earned Degrees Conferred*, annual series.

In this case the increase is less percentage wise but about the same order of increase—from some 9,000 to 34,000 over the same period of time. In spite of the predictions of a few years ago there is no dimunition in the numbers of doctorates produced in recent years, although it is about constant now. On projections everybody guesses either better or worse and to demonstrate that, the next table shows two sets of projections.

TABLE VII

Projections Of Total Graduate Enrollment By National Center For Education Statistics and Dr. Allan M. Cartter, 1976-1985

(Thousands)

Year	Total Graduate enrollment NCES (1)	Cartter (2)	Percent difference (2)÷(1)
1976	1,320	1,040	-21.2
1977	1,367	1,028	-24.8
1978	1,408	1,032	-26.7
1979	1,439	1,036	-28.0
1980	1,468	1,053	-28.3
1981	1,489	1,064	-28.5
1982	1,500	1,067	-28.9
1983	1,498	1,096	-26.8
1984	1,479	1,152	-22.1
1985	1,456	1,142	-21.6

Sources: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Projections of Education Statistics to 1985-86*, p. 25, and Allan M. Cartter, *Ph.D.'s and the Academic Labor Market*. p. 79:

There are major differences between the two, but the important thing is that they both follow the same convolutions, that is they go up and down together.

Recognizing differences in projections, I will use those of the NCES in the next table.

TABLE VIII

NCES Projections of Master's Degrees, 1976-77 Through 1985-86 With Total Science and Engineering Master's Degrees as Classified by NSF

(50 States and District of Columbia)

Year	Master's Degrees All fields	Science and Engineering Number	Percent
1976-77	338,000	62,120	18.4
1977-78	356,000	64,140	18.0
1978-79	370,000	65,270	17.6
1979-80	382,000	66,090	17.3
1980-81	392,000	66,440	16.9
1981-82	402,000	66,990	16.7
1982-83	408,000	66,840	16.4
1983-84	412,000	66,370	16.1
1984-85	410,000	64,970	15.8
1985-86	405,000	63,550	15.7

Source: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Projections of Education Statistics to 1985-86* and National Science Foundation.

This says that the master's degrees through the next nine years will be up again with a little peak in 1983 but generally running at 400,000 from 1980 on. Notice that all of these projections go up to the time of the peak when there is a drop in the reservoir. In other words if 5 percent of the cohort on to graduate school holds then the totals will come down again.

The doctoral degree data are shown in the next table.

TABLE IX

NCES Projections Of Doctor's Degrees, 1976-77 Through 1985-86
With Total Science And Engineering Doctor's Degrees As Classified By NSF
(50 States and District of Columbia)

	Doctor's Degrees		
		Science and Engineering	
Year	All fields	Number	Percent
1976-77	37,000	19,130	51.7
1977-78	37,000	19,040	51.5
1978-79	36,000	18,280	50.8
1979-80	36,000	18,100	50.3
1980-81	37,000	18,300	49.5
1981-82	39,000	18,900	48.5
1982-83	40,000	19,210	48.0
1983-84	41,000	19,340	47.2
1984-85	42,000	19,390	46.2
1985-86	42,000	19,140	45.6

Source: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Projections of Education Statistics to 1985-86* and National Science Foundation.

And here again, the same thing, a fairly steady change with a little dip in 1978-9. I am not sure I understand why the dip, but the model says this is what is going to happen. To look at it grossly, though, an overall increase of little better than 10 percent between now and nine years from now. At which time again whatever effect the 1985 twenty-three year old population has will be felt, not only on the degree side, but on the enrollment side.

If you think projections of degrees is a trecherous area the next table is concerned with the even less stable projections of supply and need; note, not demand.

TABLE X

Projected Openings And New Supply for Ph.D.'s, 1974-85

Field	Estimated 1974 employment	Projected 1985 requirements	Total	Growth	Labor force separations	Projected new supply 1974-85	Difference between new supply and openings
All fields	378,400	488,600	201,900	110,100	91,800	422,900	221,000
Engineering and natural science	177,500	237,500	[illegible]	60,000	44,000	139,400	35,400
Engineering	35,000	55,700	30,300	25,700	9,600	29,100	-1,200
Physical science	68,500	86,300	34,200	17,800	16,400	38,300	4,200
Chemistry	37,700	43,300	14,200	5,600	8,600	18,000	3,800
Physics	24,700	25,900	6,600	1,200	5,400	12,100	-5,500
Life science	60,000	78,900	33,600	18,900	14,700	59,500	25,900
Mathematics	14,000	16,600	5,900	2,600	3,200	12,400	6,500
Social science & psychology	71,600	101,600	48,400	30,000	18,300	88,800	40,400
Psychology	26,300	46,200	27,500	19,900	7,700	38,100	10,600
Arts and humanities	46,600	45,900	9,100	-600	9,800	52,600	43,400
Education	68,700	87,400	35,200	18,700	[illegible]	115,400	80,200
Business & commerce	6,500	6,800	1,600	200	1,400	13,300	11,700
Other fields	7,500	9,300	3,600	1,800	1,800	13,300	9,700

NOTE: Details may not add to totals due to rounding.

Copied from U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Projections and Training Data* (BLS Bulletin 1918).

The last column, the difference between new supplies and openings, is the important one if it is real. The difference shown is an excess of 221,000 in supply over openings, an horrendous number. Many institutions are tightening up on their graduate enrollment on the premise that there is no need for people with the kind of education we are concerned with. It is much more likely that none of us is smart enough to determine need in 1985. I do believe that the people who get graduate degrees are now aware that there is no job guarantee with the degree and more importantly intelligent enough to know that what they have learned and what they have come to understand does not focus them on a single individual field or job. It simply says to them that they are well educated persons with talents already demonstrated and with the quality of mind which suggests that they are not limited in opportunities to one subfield or even one discipline. That does not mean that somebody trained as a chemist can start as an architect, but within reasonable limits "lateral" mobility is possible, and even desirable. There are many, many things that can be done gainfully, and perhaps even more importantly, useful to society. We may have been at fault in leading people to believe that there is only one great life in the world, i.e., the academic life, and everybody fortunate enough to get into graduate school ought to aim only for that. I believe that that has been done and I also believe that is wrong.

At any rate, as far as numbers are concerned, there really will not be very large variations. Some increase still, with a decrease in the middle 80's and through the 1990's. There is no reason to believe that there will be a greater percentage of the population motivated into intellectual activity then there is now. The graduate schools will have more than an adequate share of work to do with the numbers that we know about. Incidentally, there is some evidence that in 1977 the birth rate will be up over 1976 and therefore if that persists the declining birthrate from 1960 to 1977 from 4.3 million to 3.2 million will be reversed and our successors will have other problems to worry about.

The second component of this system is support and I would like to start by making a point which for some reason does not seem to be made or at least maybe it is simply accepted as given. Whenever we talk support, we seem to talk about the support by Federal agencies, particularly in graduate education. The premise is that the graduate school, particularly in natural science, engineering, and social science, function largely because the Federal agencies supply the support money. We totally ignore what the states and the private institutions have supplied—and continue to supply—namely the salaries, the facilities to a very large extent, the general ongoing operational cost, and the fact that the campus is the place to which the student comes. The last two are probably not very easily quantifiable but the first two could be and yet for some reason they are not. When you see data about graduate student support or graduate education support you find very little in terms of the salaries paid to faculty.

I believe that faculty salaries should not be separated into graduate and undergraduate activity and here I may be at odds with some of you, if not all of you. It is my opinion that one pays an individual a salary for his or her mind and the use of that mind in the educational process in the college or university. In an institution which includes both undergraduate and graduate education it is my belief that each faculty member should be equally involved in both of them. The fact is, if you will pardon the statement that I am going to make, we pay for the machine, the machine which is held within the cranium. In any compilation of numbers the use of that machine in the interest of education requires that the whole cost of the machine be used.

By virtue of the fact that the states and the independent colleges do support faculties and facilities while the Federal government provides most of the operating expense, we have indeed what has been called intergovernmental science. It is unplanned but it is intergovernmental science and I intend to make a strong pitch that this has been going on for some time.

Let us look now at support. As you will see most of my data relates to the natural sciences, the social sciences, and engineering. Obviously that's not all there is.

The Federal government has been providing support in increasing, although maybe not adequate amounts, for the arts and humanities. A point I wish to emphasize is that the amount of money provided locally either by foundations or private citizens or local governments far exceeds that which the Federal government puts up even in the 1978 fiscal budget where about $250 million is made available for this purpose. This by the way does not include other federal contributions which could be counted, e.g., the Library of Congress.

Federal support of arts and humanities started in 1965 as a finite formal entity and has been increasing in a significant fashion as the next table shows.

TABLE XI
Annual Funding of
Arts and Humanities Endowments [1]
(Dollars in Millions)

Fiscal Year	Arts	Humanities	Administration (Joint through 1977)
65		No funds available this year	
66	$ 2.5	$ 2.5	$ .7
67	8.0	2.1	1.0
68	7.2	3.8	1.2
69	7.8	5.0	1.4
70	8.3	8.1	1.6
71	15.1	13.6	2.7
72	29.8	28.0	3.5
73	38.2	38.0	5.3
74	60.8	51.0	6.5
75	74.8	73.8	10.8
76	82.0	79.5	10.9
TQ*	33.9	21.3	2.7
77	94.0	93.5	11.7
78	123.5	121.0	-2/

[1] There are approximately 200 Federal sources of funding for the fine arts alone. At present there is no report on all of these, although there may be in the near future. Data for the humanities is thought to be less organized.

[2] Administration is no longer joint with separate funding; now included in each Endowment's total funds.

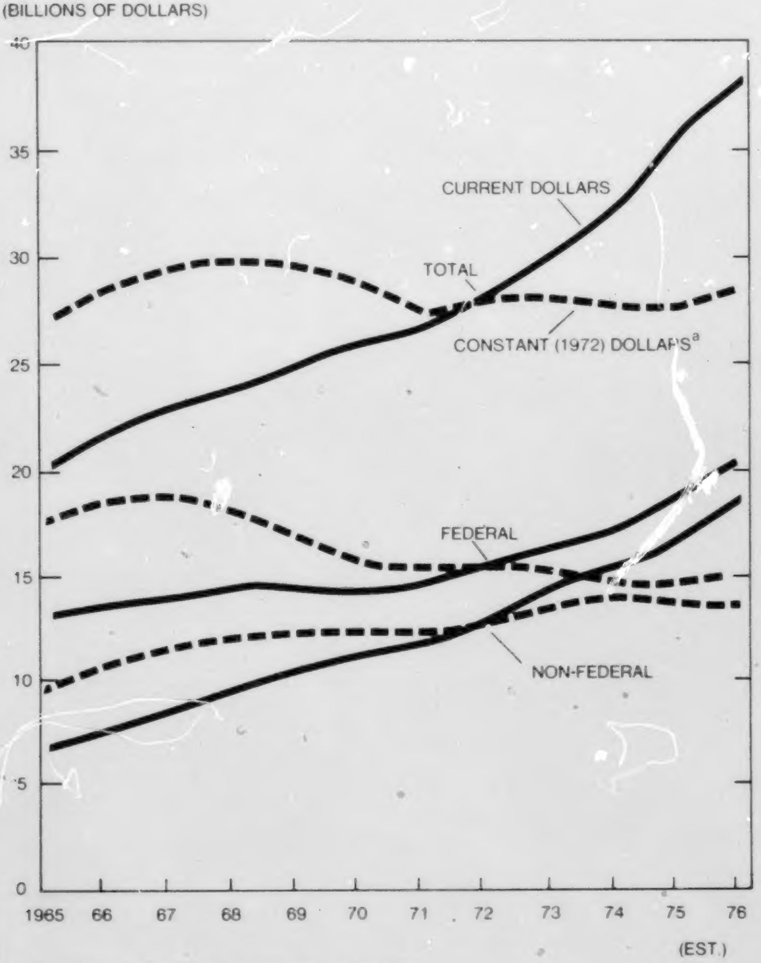
SOURCE: Fine Arts Endowment, Budget Office, Mr. Baden. (Since the administration of both Endowments was joint until 1978, this office has records for both.)

It is in pretty good condition because it is not yet big enough to attract attention, lightning will not strike it until it gets closer to $1 billion per year. It must be noted that a large portion of this budget goes to other than university activity, e.g., museums, ballet, etc.

The next illustration shows national R & D expenditures, not Federal, in current and constant dollars.

TABLE XII

National Research and Development Expenditures: 1965-1976

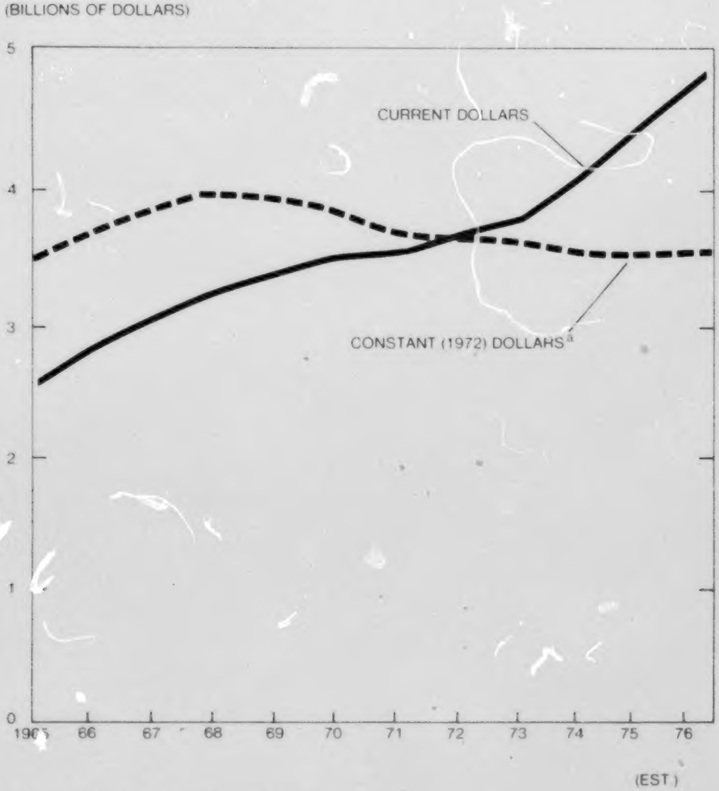


a/ BASED ON GNP IMPLICIT PRICE DEFLATOR
SOURCE: DIVISION OF SCIENCE RESOURCES STUDIES/STIA

As you see, currently it places us at about $40 billion. You can also see that the Federal portion in constant dollars is increasing to a considerable extent over that of the non-Federal part. By the way, this non-Federal does not include what I told you about a moment ago, e.g., faculty salaries. It includes those items in university budgets which are so directly stated to be research support, or those things in company budgets which are so identified.

A little closer to the interest of the university is the basic research expenditure.

TABLE XIII
National Basic Research Expenditures
1965-76



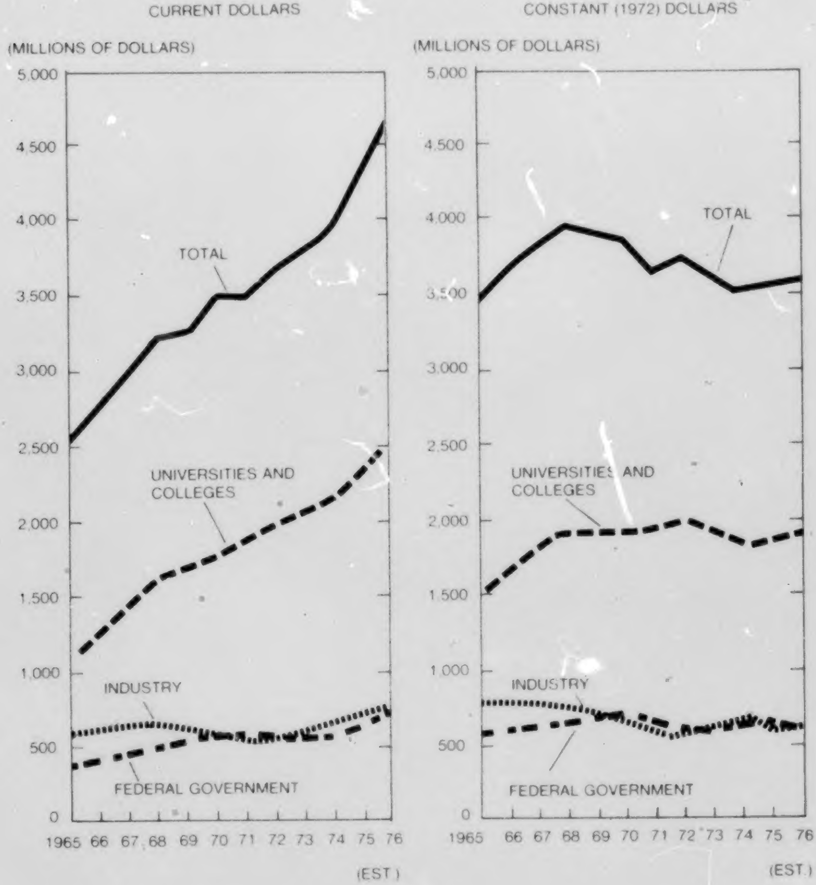
a/ BASED ON GNP IMPLICIT PRICE DEFLATOR
SOURCE: DIVISION OF SCIENCE RESOURCES STUDIES/STIA

It is peculiar, but people speak about R & D as if it were a unit and as if the two parts were always equivalent. R is of the order of 1/10 of D and a small change in development in value has a large effect on research, up or down. As it turns out, R has tracked R & D when viewed grossly, although if you overlay this curve with the one preceding it it would not track it precisely. There are changes in research support which are if not maiming at least detrimental, something you cannot get out of reading R & D figures. I urge you to keep in mind the importance of the ratio of R to D whenever you read R & D figures.

The next curve shows the kind of research support but this time by performer supported.

TABLE XIV

National Basic Research Expenditures By Performer: 1965-76



CURRENT DOLLARS

CONSTANT (1972) DOLLARS [a]

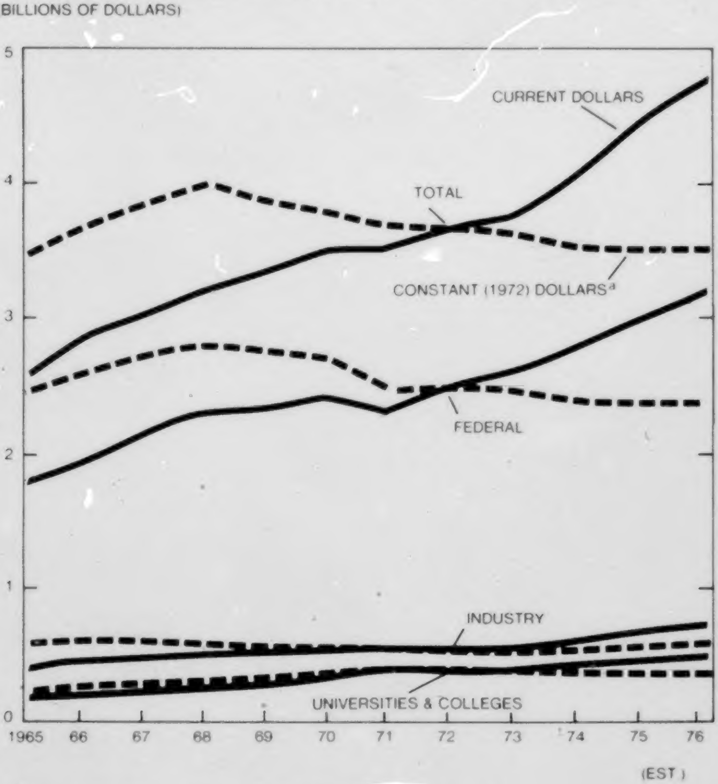
a/ BASED ON GNP IMPLICIT PRICE DEFLATOR
SOURCE: DIVISION OF SCIENCE RESOURCES STUDIES/STIA

This is for basic research and you will not be surprised that universities accounted for most of it, but it may surprise you that this sector did only about 53 percent of the basic research done in the country. We are the major site of scientific basic research but by no means the sole site.

In the next illustration we show the R support by source, this is where the money comes from.

TABLE XV

National Basic Research Expenditures By Source of Funds: 1965-76



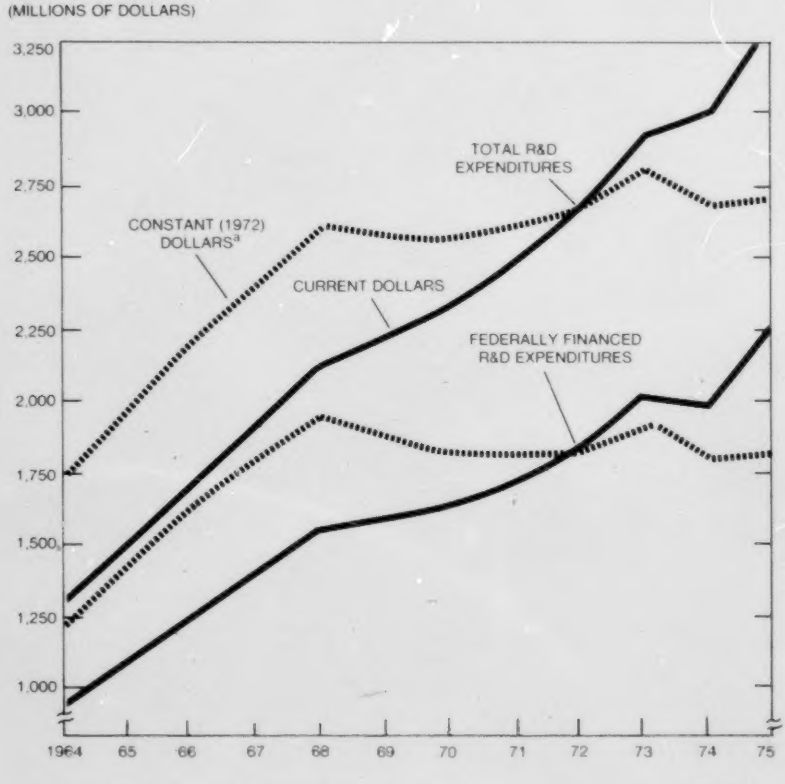
a/ BASED ON GNP IMPLICIT PRICE DEFLATOR
SOURCE: Division of Science Resources Studies/STIA

The bottommost curve since it is so low probably includes only direct appropriations of research monies. In some states such appropriations may be almost nil. For example, in Texas it is some $3 or $4 million for all state institutions. It obviously does not include faculty salaries, cost of facilities, and so on.

The next set of curves show the total dollars spent in universities and colleges, however, as already noted.

TABLE XVI

Research And Development Expenditures
In Universities and Colleges: FY 1964-75



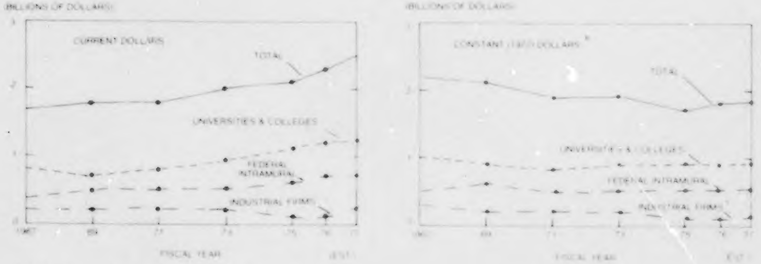
a/ BASED ON GNP IMPLICIT DEFLATOR

That is, the funds shown here are likely that directly budgeted as research monies and probably miss the important part of the cost of people paid for by the institutions. This thesis will simply be mentioned here again and be developed further at some other time.

The next illustration shows Federal research obligations for the period of 1967 to 1977.

TABLE XVII

Federal Obligations for Basic Research by Major Performer: FY 1967-77a



a ALL LINES SHOW TRENDS BASED ON 2 YEAR INTERVALS EXCEPT FOR THE 1975-77 PERIOD. PRIOR YEAR DATA FOR FISCAL YEARS 1968, 1970, 1972, AND 1974 BY CHARACTER OF WORK ARE NOT AVAILABLE PENDING REVISION BY NASA FOR THOSE YEARS.

b BASED ON GNP IMPLICIT PRICE DEFLATOR WITH AN ESTIMATE FOR FISCAL YEAR 1977.

c INCLUDES FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S).

SOURCE: DIVISION OF SCIENCE RESOURCES STUDIES, NSF

It is clear that direct support for basic research is on its way up in so far as Federal spending goes. The number of Ph.D.'s are constant or decreasing slightly. The match between the dollars available and the number of proposals is therefore more favorable to good proposals than they have been in the past. Over the past several years during the period at first of declining support the number of people through the pipeline increased. Now both have turned the other way. Diminishing this favorable effect for the individual research worker is the increasing tendency to support large centers. This may be in social science, as in the University of Michigan's activity in political science, or in natural science as at Kitt Peak for the astronomers, or a cyclotron as at Indiana University. But all things astronomers, or a cyclotron as at Indiana University. But all things considered, the probability of improvement of getting support for good proposals is improving.

Now, how about excitement? Why have universities been considered to be intellectual centers? Has it been because of the large amount of humanistic activity on the campuses—the writers, the artists, the musicians? Good writing has been done on campus, but campuses have not been the principal site of the great writers, the great artists, and the great musicians. What I would call the war on culture has stemmed from places off campus rather than on campus.

The mechanics are valuable, but not vital. What the campus does do is give a breadth of view that you might not get in a garret.

In any event, I believe that universities began to acquire a reputation as intellectual centers only about one hundred years ago. I think it began to be considered a center when the original work of the scientist on campus began to appear. Basic scientific work really did get centered on campus. Of course there was invention, development, and basic science off campus, but the improved understanding of nature stemmed in large part from the universities.

This proposition is neither derogatory to the humanists nor laudatory to the scientists, nor is it based on my possible bias. It is an observation worth examining because it has such a large effect on the graduate school. It was with this 100 year old activity in the sciences, which includes the social sciences, that I think the university began to get its current reputation. Of course, in time as with all human endeavor, the ministry appeared, the dogma, and, yes, the cathedrals.

The purpose for which the faculty member came to the campus in the first place underwent a dichotomy. We came originally because we were interested in helping reduce the ignorance of the young people who came to the campus and simultaneously to reduce our own. There is an infinite stockpile of ignorance and although we can learn and know more and more, the stockpile is still infinite. So, as far as I am concerned, scholars will always have something to do.

To return to the point, we did the two kinds of ignorance reduction simultaneously in a single integrated package. My professors forty years ago did not seem to distinguish between the undergraduate and graduate student as much as we do now. In part this is because of the influx of undergraduates following the nation's adoption of a policy of mass higher education. Whatever the reason, the fact is that what was originally synergistic, facilities and faculty and fresh young minds in one place, and productive, had within it the seeds of its destruction. Those faculty who got ahead were noticed predominantly for what they did in their own scholarly work and not for what they did with their students. Therefore, and almost inevitably, we pressed on our scholarly work and its publication to the detriment of the other important activity. In other words, the synergism actually led us into a trap where divergence appeared. Now, I will make a proposition that the universities receive money predominately for one purpose and use it predominately for another. That we really don't make proper efforts to use the money, public or private, as effectively for the larger, less noticeable activity of education than we do for scholarly work. This is not done deliberately or maliciously but I think it is an honest statement. If we are in danger of being debilitated by lack of public confidence then we ought to know what we are doing wrong and what we are doing right. Then we can defend the proper things and change the improper things. Perhaps we should relearn how to carry on the two functions mentioned earlier simultaneously.

Is there excitement on campus in terms of constant frontier learning? Of course there is, exciting stuff, new ideas, new concepts, new things, new understanding. If we could force that to filter down into the lower levels of post-twelfth grade education we would be better off. The more we can include all students in that excitement the better. I am not sure it is possible to do so in large schools but I will not get off here into a debate about large and small. I do think that the faculty with which I am now associated are more nearly of the classic type which deals with all students evenhandedly. It is difficult on some of them because they do not get as much notice as their colleagues elsewhere do who can put research first. They have to get their excitement in part from the very heady experience of dealing with good young intellects not yet constricted by experience. It should be understood my colleagues are also good, original scholars at the same time.

If the suggestion is factual or not, the problem is, still what do we do? First we must learn not to be quarrelsome. We have been so about the public not appreciating that graduate education is indeed education. We have no right to a sequestered arena in which to function. We have to learn how to live in the society which supplies the support. By the way, it does not make any difference in this arguument how the money is pooled for purposes of education, i.e., whether through foundations, individuals, or various governments.

When I first read "Science at the Bicentennial," I thought it was a fine piece of work. About two months ago I re-read it for another reason and somehow I read it without my bias on and came to the impression that it simply said give us something, that we are not being treated well. It really did not have the substance to cause me, in neutral, to say, of course, I'll give it to you.

That is a general problem. Smith and Karlesky's book, *The State of Academic Science - The Universities in the Nation's Research Effort,* talks about the importance of science and technology in the nation and the importance of universities to science. It also treats the current strain on universities and therfore on the science in universities. There is nothing wrong with that, but it does the inevitable thing, it says that you are not giving us enough dollars—not science, the universities. As if it is inevitable that science and universities are inextricably interwoven, therefore you have to support both. Nor do publications generally suggest any other way of alleviating the strain than by increased dollar support.

The interweaving may be a proper debating point but then it seems to me we would well to do it openly. We have to say to the Congress, to the Executive, and to the people at large you are making a mistake, you are losing a critical resource, you ought to federalize the universities. Now you think about that for a moment and see if you like it. The country has tried just a few times to produce a Federal university and has never been successful. Or you can go to the state and say, "We really have not been looking at this problem properly." The education of people and the production of new thought are both vital. These things deserve support on the local level. It is indeed proper for some part of the taxpayers money to be used for that purpose. We may not be able to calculate this on a formula basis but we can do it by actual costs.

That would be an honest approach. It would reduce the number of new places or even eliminate some of the old ones. It would be a much more forthright way of asking for support of the enterprise, not support of graduate education and not support of research but support of that enterprise which constitutes education at the advanced level.

It is not worth concerning yourselves about this if there was not real excitement on the campus. Discovery, truth, understanding, the business of a faculty member talking to a young person whether graduate or undergraduate and watching that person's eyes sparkle a bit, that is excitement. And I think, by the way, understood by more people than you would believe understand it.

What is the prognosis based on graduate education being a national resource? The numbers do not seem to me to be a problem. Up or down it doesn't make much difference. I would certainly not discourage potential graduate students on the basis of the fact that there is no job in sight. I would certainly tell them what prospects there are in 1978 but you really can't beyond that. They should be apprised of the guesses for, e.g., 1980. I would point out to them that if you are as smart as we think you are you will find a way to make use of your education, even if not directly. The graduate school education should not be simply a training program, but to the extent post-baccalaureate work is a training program the more important are good guesses at supply and need.

Graduate education should minimize specialization. There was a great tendency in the 50's and early 60's to narrow the Ph.D. programs to very specialized pathways. Once you got into such a trench you couldn't get out of it, you couldn't see to either side, much less move sideways. Breadth, and a view of the world, are needed in the most esoteric graduate programs. The question then becomes—is there going to be a university for anyone to come to?

There are at least three possibilities. One of them is to stay as it is and we will continue to handle our affairs as we have and continue to get enough money to operate, even if only minimally. This proposition suggests change for all but us. Second, there is talk of separating the collegiate activity from the university activity. Thus there would be free-standing research institutes and the four-year college in some form. Basically this separates the graduate work from the undergraduate work. I do not believe this is a desirable option. The third possibility is to alter the current system by a variety of ways. For example, we are getting much closer to being able to network certain kinds of facilities, especially libraries and computers. One of the things that could use all of our substance is that most necessary educational facility, the library. But none of us can really continue to support libraries in the fashion so far used. So much material is published that it overwhelms staff, space, and capacity to use even modest portions of the total. Networking may be the only solution, as may also be the case for computers.

Each campus cannot have the best facilities in all fields. Between-campus facilities, large ones in particular, are the things that we will have to learn to live with. Also there may have to be more mobility of faculty in terms of exchange, for the good of the university at least equal in purpose to exchange for the good of the individual. Thus far visitors and exchanges have been basically for the good of the individual and the university got only the reflected good. There is no objection to that but we cannot afford that solely. A more mobile faculty, between-campus facilities, and networks need one more thing, namely faculty with a greater interest in the student all up and down the line. There is evidence that newer faculty members, at least, show this interest.

My belief is that the last of the three possibilities will prevail. Probably, nostalgically, certainly I would dislike seeing us separate out free-standing research institutes, especially because there is no opportunity to reflect the excitement in advanced work back to those that are not yet as advanced. From what we have, what we can project, and what I think may happen, the third alternative appears to be most likely.

Thank you very much.

Second Plenary Session

Wednesday, November 30, 1977, 2:00 p.m.-3:15 p.m.

USES AND LIMITATIONS OF DIMENSIONS OF QUALITY STUDY

Chairman: Michael J. Pelczar, Jr., *University of Maryland*
Bernard J. Downey, *Villanova University*
Irwin C. Lieb, *University of Texas at Austin*
Oscar A. Rogers, Jr., *Jackson State University*
Herbert Weisinger, *State University of New York, Stony Brook*

Michael J. Pelczar, Jr.

Welcome to the second plenary session of the 17th Annual Meeting of the Council of Graduate Schools in the United States.

The program for this afternoon on the assessment of quality of graduate programs has been arranged in two parts. For the first session we have assembled a panel of deans who will provide brief statements on selected aspects of quality assessment; first as concerns master's degrees and then as related to doctoral programs. Deans Bernard J. Downey and Oscar A. Rogers, Jr. will speak on the quality of master's degrees, and Deans Irwin C. Lieb and Herbert Weisinger will comment upon the quality of doctoral degrees.

Following the presentations by our panel members at this plenary session, we will have three workshops on the same general topic of assessment of program quality. However, each workshop will concentrate upon a different program area, namely:

Workshop I	Assessment of Quality—The Master's degree
Workshop II	Assessment of Quality—The Ph.D. degree
Workshop III	Assessment of Quality—Graduate Programs; Research/Practitioner

As you will note, each workshop is staffed with chairpersons, resource people, and a recorder.

The Program Committee structured this afternoon's meeting in the fashion described, anticipating that the membership would grasp the opportunity to share practices and concepts of program quality assessment. In particular, the focus should be directed toward the applicability of the CGS-ETS "Dimensions of Quality" model.

The turn-over rate for deans of graduate schools is fairly high, which means that several of you in the audience may not be as familiar with the CGS-ETS "Dimensions of Quality" study as are some of your colleagues. Accordingly, I will take a few minutes to review how we got to where we are.

Several years ago (1973) the Graduate Record Examinations Board together with CGS, convened a small group of graduate deans for the purpose of identifying the components of graduate programs that bear upon quality. We met for a day in a hotel room at O'Hare Airport and spent all day on this topic. Dr. Mary Jo Clark from ETS, who has been associated with the project since its inception, guided this discussion. We are pleased that she is with us today. Following this one-day meeting, Dr. Clark constructed a very lengthy list of program characteristics important to know about when making judgments about the quality of graduate programs. This list was sent to approximately 60 graduate deans for judgments about the importance of measuring each characteristic. The deans also rated the adequacy of several possible ways to measure each of them. Based on the ratings of this expert panel, a smaller and more manageable set of "Dimensions of Quality" was then developed by Dr. Clark in collaboration with a steering committee appointed by the GRE Board and CGS. At about this same time a proposal for a pilot study designed to make quality assessments of a few programs (history, chemistry, and psychology) at 25 selected institutions was prepared and submitted by CGS to the National Science Foundation for funding. The proposal was funded; the study was carried out under the direction of Dr. Clark and her colleagues at ETS. A detailed report of the study was made available in 1976. At about this same time the Fund for the Improvement of Postsecondary Education (FIPSE) was approached for support to disseminate results of the research and encourage discussion of related issues in the graduate community. In order to reduce the larger detailed scientific report of the study to a brief but comprehensible statement about the study, the booklet entitled "The Assessment of Quality in Graduate Education: A Summary of A Multidimensional Approach," which you received before this meeting, was prepared by Dr. Mary Jo Clark and Dr. Rodney T. Hartnett of ETS; its production and distribution was funded by FIPSE.

One additional recent event concerning this project should be mentioned. On October 20-21, 1977, just about one month ago, an invitational meeting was held in Reston, Virginia, to discuss the above mentioned report. Approximately 40 persons attended. Representation included graduate deans, officers of state (governing and coordinating) boards of higher education, and representatives from government and private agencies. All of us on the panel were in attendance at this conference and during the course of our discussions today we will be able to share with you some of our observations.

In one sense, the Reston, Virginia, meeting together with this meeting will conclude another phase of the CGS-ETS "Dimensions of Quality" project. President Page has informed me that following this meeting the CGS office will issue a publication which will include *recommendations* on the use of the "Dimensions of Quality Model" in addition to an over-view paper.

By way of setting the stage for both the panel presentations and subsequent discussions, I would like to present in summary form my ideas of the applicability and limitations of the "Dimensions of Quality" model system. I see the attractive features as follows:

1. Provides a systematic, programmed approach for the collection of considerable data that is related to the character and quality of a graduate program; it is an instrument or a technique that provides a good starting point. This is not an "end" but a systematic "beginning"; it can be improved upon with use and experience.
2. The information obtained is multidimensional; a broad spectrum of characteristics are assessed and tabulated.
3. It will provide a set of data tabulated in the same format for programs in different subject areas, e.g., chemistry, history, etc., from different institutions. Comparable institutions, and I stress the word *comparable*, may use this information for constructive comparisons.

4. Similarly, different programs within the same institution within related fields can be compared against the same spectrum of data e.g., (social science, humanities, and sciences programs).
5. The accumulation of data in programmed form over time in the format suggested in the study provides a means to follow changes in "quality" in a program. It provides for compilation of specific evidence to support claims of "improvement" or "deterioration" of a program.
6. The kind of information as well as the breadth of information would make it possible to identify the specific weaknesses or strengths in a program. Such information would be helpful to the administration for making decisions with respect to program needs.
7. Whereas peer review, particularly by persons outside the department, reflects what the program was like when they knew it, the present method provides for a more current assessment.
8. Much of the work to carry out the assessment of quality can be performed by the staff of the institution. It allows for assessment of graduate education in all areas in a similar manner.
9. If this information were made available to students it would provide students with a better characterization of a program; particularly as viewed by students, faculty, and alumni.

Turning to the *limitations* (or questions that might be raised) of the Quality Assessment technique, I have enumerated the following:

1. How is a "quality program" identified initially? (or) How are specific criteria equated with quality?
   a. Quality in relation to goals?
   b. Quality as measured against what kind of goals?
   c. Quality as related to outcomes of the program?
2. The present criteria were used for Ph.D. programs. Are they equally applicable to other doctoral degrees, e.g., Ed.D., D.M.A., D.A., D.B.A.? What about master's degree programs?
3. In the present study it was assumed that in the group of institutions selected, some departments would have programmatic objectives different from the characteristic research-scholar goal. This was the case for only a few of them; most were traditionally research oriented programs. The question is—are the characteristics equally applicable to:
   a. programs that place emphasis on teacher preparation?
   b. education and training of practitioners?
4. The assessment does not directly address the program as to its:
   a. Importance to closely related programs, e.g. biochemistry as support to microbiology, botany, zoology:
   b. to the total graduate program.
   c. the undergraduate component within the same department.
5. A large bank of *normative data* is needed to make comparisons. Here I would raise the question of the need for grouping institutions which have some basis for comparability, much like the AAUP establishes categories for salary comparisons by institutional groups. In any event, the use of *normative data* should be for use within restricted groups and not national-"across the board."

Now we will proceed to our panelists.

Bernard J. Downey

When one pauses to consider the phenomenon of master's degree production a number of facts come to mind. Each year over 300,000 master's degrees are being granted. According to a recent survey conducted by John Ryan of the CGS office, there are over 200 different kinds of master's degrees being offered. Since the survey looks at the M.A. and M.S. each as one kind of degree—one can conclude that there are probably some 250 fields in which master's degrees are offered today. Certainly, there is some exaggeration here since different titles may be used for essentially the same degree. Nevertheless, it is certainly a fair estimate that at least 200 kinds of master's degrees are offered today in the United States. A third perhaps significant point of information is the fact that many institutions today offer master's degrees entirely or in great part through off-campus programs. Over the past few years, many questions have been raised concerning these phenomena.

- Should such a large number of degrees be granted?
- Do we need to have so many different kinds of degrees?
- What is the quality of these degrees? Who—if anyone—should "monitor" the quality of the degrees?
- Should there be off-campus degree programs?
- Who should be empowered to grant master's degrees?

While all of these are perhaps legitimate questions to raise, I submit that the most fundamental question among these is the query concerning the quality of master's degrees: What is the quality of these master's degrees? The very nature of our positions as graduate deans makes it evident that the quality of the graduate degrees we grant is one of our prime responsibilities. This certainly includes master's degrees. In recent years more and more concern has been demonstrated on this latter subject both in regional and national associations of graduate deans. In the recent conference at Reston, Virginia, concerning the Assessment of Dimensions of Quality in Graduate Education, this topic came up several times—although the major stress was on doctoral degree quality. In a short while Dean Rogers of Jackson State will speak to you on this topic of the projected use of a multidimensional approach in the assessment of quality of master's degrees. Before we reach that stage, however, I would like to consider one particularly important aspect of the effort to measure quality in master's programs.

I am strongly convinced that one of the things we must consider is the nature of the institution granting the degree. I believe we can very safely divide all of the American graduate schools into two groups: the one comprising those institutions—which are primarily concerned at the graduate level with the granting of research-oriented doctoral degrees—these are the prestigious and near-prestigious institutions; the AAU schools and their peers—institutions with established reputations as centers of scholarship and learning.

The second group—the majority of the CGS membership and an even greater percentage of the total number of schools granting graduate degrees, includes all institutions which at the graduate level are either primarily or entirely master's degree granting institutions.

Now, the question of what constitutes quality in master's degree programs should hopefully have essentially common answers from the two groups. However, when one begins to ask questions such as who are the faculty, what are their degrees, from which institutions were these degrees awarded? What is the research record of the faculty? How active are the faculty professionally, etc.—when one begins to consider the resources available, the prevailing institutional philosophy, the attitudes of those responsible for the direction of the institution, one can, I believe, see major differences between the two groups. Institutions in the first group who have been careful to attain and maintain quality doctoral programs will have the resources in place to insure quality master's degrees. The prevailing institutional philosophy should quite easily spill over from the doctoral to the master's programs and insure quality in faculty, curricula, physical and library resources, and program requirements. Granted, faculty attitudes sometimes minimize the significance of the master's degree in such institutions. Nevertheless, the resources are generally at hand to preclude poor quality when there is responsible attention given to these degrees. The second group of institutions does not have this "higher" (if I may use that relative term) protection flowing from doctoral degree resources. The quality of master's degrees in this second group will, therefore, stand or fall on the institution's success in identifying the characteristics of quality master's programs and its vigorous efforts to attain and maintain these characteristics. In view of this, I submit that the major thrust towards the establishment of criteria for the recognition of quality master's programs should come from those institutions which at the graduate level are primarily or entirely concerned with granting of master's degrees. I say major thrust because there is no doubt that valuable input will be obtained from representation from the doctoral granting institutions in any working group constituted to address the overall problem. But, I would maintain that the majority representation should be from those most involved and most concerned about quality master's programs, namely, the graduate deans from those institutions which at the graduate level are primarily or entirely master's granting institutions. I would propose that a group of interested graduate deans be given the overall responsibility for developing a set (or sets) of quality characteristics, appropriate indicators and procedures to be used to maintain and improve quality graduate education at the master's level. Now let me hasten to state that I would not recommend that such a group reinvent the wheel. In the first place, a number of studies have already been made—some quite recently—which would be very helpful in this project. In addition to the CGS-ETS study on the Assessment of Quality of Doctoral Programs and the proceedings of at least two high level conferences related to this study, there are a number of institutional approaches to the problem which are already in existence. Furthermore, Mary Jo Clark has also conducted a study called "Program Review Practices of University Departments" which looks at the efforts of these latter to maintain program quality. Also, one of the CGS standing committees is the Committee on the Master's Degree. In addition to assisting in the final revision of the recently released CGS statement on *The Master's Degree*, this committee has begun to address the even more comprehensive subject of the nature and quality of the master's degree. Perhaps this committee could be given overall responsibility for the implementation of the project.

Let us now try to sum up this brief presentation. There are a number of questions which must be answered:

1. Is there a need for the CGS membership to be concerned individually and collectively with the quality of our master's programs? Assuming that the answer is yes, I then ask:
2. What are the characteristics of a quality master's program? This must include the sub-question. Is there a single set of such characteristics, or are there some differences in characteristics among say (a) the more traditionally academic disciplines, (b) the so-called professional areas—education, business, etc., and (c) the fine arts areas. Whether or not there is more than one set, if such characteristics can be identified, I then ask:
3. What are the indicators which one can use to measure the degree of quality associated with each of the characteristics? In a few minutes, Dean Rogers will discuss Mary Jo Clark's assessment study and explore its possible use—perhaps in some modified form—for master's programs. This is one definite approach to this question.
4. Finally, how does an individual institution follow through on questions 2 and 3 in applying the results to itself?

It seems to me that the complete set of questions implies some concerted effort on the part of the CGS membership to develop a plan to identify (1) the quality characteristics the (2) indicators to measure these, and (3) recommended approaches which might be used by the graduate deans to their individual efforts to attain and maintain this desired quality.

In addition to hearing from Dean Rogers, there will be a panel on the Assessment of Quality in Master's Degree Programs later this afternoon. Also on Friday morning there will be a workshop on directions of the master's degree. Hopefully, from the discussions ensuing from these sessions, some consensus may result regarding the approaches to be used in the development of some overall plan such as that suggested above. I believe that the goal of insured quality education at the master's level is well worth all the effort involved. And, I would hope that your contributions in these discussions will help CGS to take a major positive step in the achievement of this goal.

Irwin C. Lieb

Over the last ten years, there has been a great deal of searching reflection about the quality of graduate programs. There have been revealing major national assessments, and new assessments, with new and more sensitive instruments of assessment, are in prospect.

We have all learned from these studies; we are all impressed by the needs for informed, continuous and effective assessments of quality; we are all either now engaged in programs of evaluation or we will soon have to inaugurate them.

Though there are serious difficulties in understanding conceptions of "quality," and though there has also been some popular but gratuitous mysticism about the notion, we know, and know fairly well, what to look for to judge the quality of graduate programs. We also know how to weigh the many sorts of items we use in our assessments; for example, in Ph.D. programs, we know how to weigh the preparation of our students, the award to them of national fellowships, and their placements; we know how to weigh the teaching, research, publications, and grants to our faculty, and the availability of the resources in our universities. The account of these is so well and widely known that, in the few remarks I am able to make, I would prefer not to comment, or comment at length, on indicators of quality, but to talk instead about four observations, observations about 1) the comparison of graduate programs in different institutions, and the comparison of programs one with another; 2) about the quality of programs over a period of time; 3) about the administrative use of evaluations, and 4) about ideals in education. The observations are not independent of one another. I think that will be plain, even though my comments about them are brief and not detailed.

First, about comparisons: there are many features that constitute the quality of a Ph.D. program. Programs are good *in* this; they are good *at* this, or they are good *for* this or that or another end. Whether we think of a program's quality as intrinsic to it, or whether we also think of it as purposive, programs can, with care and sensitivity, be compared with one another in their quality. There can therefore be rankings of programs. And in ranking programs we say not only that one program is *relatively* of higher rank than another, but also that programs are ranked with respect to standards that would be difficult to define, but which we also have some insight to.

There are three ancillary points about comparisons: it makes a great deal of sense—it is especially revealing—to compare programs by sectional or distinctive university groups; to compare, for example, biological programs in the large state universities, the classics programs in the large libraried universities; the programs in the major private universities, or the programs in the Midwest, or the South, or Southwest. Such divisional comparisons provide, perhaps, more useful and more realistic appraisals of the character, distinctive achievement and opportunity of our programs than national assessments do. We should encourage the development of grouped assessments.

Still, we need national assessments too, especially now, with the strong prospect of reduced federal, state and private funding, and with the decreased academic placement of some of our Ph.D.'s. Not all our programs will be continued; some of them, out of both the national and the local interest, should not be continued. Comprehensive comparisons are an important guide to the development of academic administrative policy.

One further, and more controversial note: Our comparisons have usually been made by "program kind"; geology programs, for example, are compared to geology programs, romance language programs are compared to romance language programs, education with education, business with business, and so on. I want to urge that we have also to compare the educational quality of different sorts of programs with one another—as we all do, though informally, in our own universities; so that we are to think that a geology program is perhaps stronger *as a program* than an English program, and the same across other fields.

My most emphatic concern about such comparisons is, frankly, with the professional schools. They are tending more and more to be self-contained units, and to require all the instruction of their students within the schools themselves. They are, then, more and more isolating themselves from the Arts and Sciences disciplines which are most fully engaged in the fundamental studies which the professions apply. In isolation, it is my experience and impression that the quality of the professional programs declines. It does not especially impress me, then, to see rankings of Colleges of Education or Colleges of Business or Colleges of Pharmacy, when the level of even the highly ranked professional schools is far too low. The twentieth, tenth, even the first rank, in the sorts of cases I have in mind, is no cause for celebration.

The second observation I want to make is about an indicator of quality—the tendency, direction and stability of graduate programs. It is a surprise to me that this almost Aristotelian) sort of indicator is not more prominent in our assessments. Most assessments are like snapshots, cross sections, slices at a moment in the life of programs. The points to be implied are obvious. We say that this is the quality of a program *now*, and we often complain of peer evaluations, that they are, at best, statements of what programs *were* when the evaluators knew them.

But it is important *now* to say whether programs are improving or not, whether they are getting better, or whether their quality is diminishing. Our sight of a program's *potentiality* is steadied by continuous evaluations but it is not assured by them. We have to have some sight into the disposition of programs, into their tendency, their direction and aspiration. This important indicator has direct bearing on the last two observations I want to make.

The third observaiton is about the administrative use of evaluations. In far too many institutions, evaluation programs have been inaugurated without careful coordination with university administrations. Even when there has been coordination, policies of response have not often been developed well or made explicit enough. I mean that even if we were sure of the soundness of an evaluation, even if our instruments of evaluation are fair and fine, what then is to be done with and for the programs that have been evaluated? What are our universities' policies? Will we support strong programs and try to make them even stronger? Will we especially support our weaker ones? Will we decide that the strong programs are to remain strong and the weaker ones are to remain in the present standing? What are our university's policies about strength and weakness, stability and growth? It would be a mistake for us to be occupied with the precision of evaluations if there are not effective policies of response to our findings.

There are, as you know, no general, formal answers to issues about the development of policy. I would like to remark, however, how important it is in the development of policy to consider indicators of a program's tendency, direction, and aspiration. The importance of this sort of indicator is that it makes us especially aware of options and alternatives in responding to assessments of quality. If evaluations are not wholly assessments of achieved present quality, then we may see, for example, that if the excellence of a program is owed mainly to the standing of its senior faculty, there will be one or another of several ways of sustaining or even enhancing its standing; and likewise for programs which are promising but have not yet achieved distinction. The point again is plain: Quality, at least as it concerns us, is not momentary. It would be unwise for us even to try to provide instant program quality. Assured sight into the tendencies of programs is essential in the planning we have to do.

Finally, in connection with the tendencies of programs and planning for them it is also important for us to venture formulations of ideals for graduate programs, however mixed or qualified the ideals may be. The ideals for our programs are not provided for us by comparison with other institutions now. Whatever we may learn from such comparisons, we cannot want to achieve in the next ten years the configuration which a high-quality program had ten years earlier. Directions have to be adjusted in the light of ideals—and in graduate education the responsibility for defining the general patterns of quality for programs is the dangerous and the important responsibility of the graduate dean. It is in acting on this responsibility that graduate deans fulfill the charge to them that they be the intellectual consciences of their universities.

Oscar A. Rogers, Jr.

My opening statement on the applicability of the multidimensional technique to master's degree programs assessment is from the posture of a university administrator. I must provide aggressive leadership to accomplish program evaluation. Our State Board of Trustees of Institutions of Higher Learning demands thorough review of graduate programs. Legislators are calling for the most stringent evaluation of education at all levels, ostensibly at the graduate level to reduce duplication and to provide for better distribution of scarce resources. They also voice demands for quality at the master's degree level. What might result is further limiting of educational opportunities for persons from deprived circumstances. Quality and evaluation to some officials are the results of a single measure and a one-time measurement on a standardized examination. Nevertheless, assessment from our point of view is most important in terms of cost effectiveness, efficient operation and overall quality maintenance in order that instruction and learning are maximized and optimized. Most important is the need to make sure our graduates, for the most underrepresented students, will be able to compete in the market place for scarce positions usually denied to them for any reason.

The multidimensional technique applied to master's degree programs affords one with a comprehensive tool to assess quality at any level of instruction.

Quite recently, deans of several undergraduate schools were discussing student evaluation of faculty by department and school when the question was raised as to the relationship of such a single dimensional approach to perhaps other possibly needed assessment such as followup studies of alumni. It became most clear that a multi-facet approach was needed. Is not that the approach of national and regional accrediting associations? It seemed to some of us that the National Council for the Accreditation of Teacher Education and the Southern Association of Colleges and Schools assess quality from a multidimensional approach as do program accrediting agencies? Their standards embrace the universe of the institution as they relate either to parts or to the whole of an institution.

To be absolutely sure, we have used and are using all of the dimensions. However, what we now have in the CGS and ETS multidimensional approach is the best available results of some of the nation's leading minds. Efforts have been made to validate the indicators with the hope that they can be generalized as guideposts to quality in most fields at other levels.

The saddest thing I know is a book not read or a study not used. It is my contention that the several indicators will prove beneficial at the master's level. More specifically, the nine indicators under the *faculty dimension* appear to be all applicable to master's programs at broad-based institutions with or without doctoral degree programs. Many institutions with only master's degree programs could show degrees of quality if the research activity index is applied to their faculty of doctorates.

The *students dimension* contains six essential indicators and are modifiable to be applied to master's degree programs. The quality of theses could be assessed, and those programs not requiring theses could be evaluated in terms of other elements such as the nature and place of the internship. Student attrition at the master's only institution will be difficult to handle because of the matriculation behavior of part-time students. The time it took to get the degree as an indicator seems to be unimportant by some evaluators.

For all programs the indicators associated with resources, enviornment, program procedures, and alumni are essential for any worthwhile assessment. Much and additional study should be given some of the indicators. The role of the student in the overall evaluation appears to be crucial. They rate the quality of teaching, report about various aspects of program environment such as the quality of advisement and peer relationships, and rate program contents and procedures. Doctoral students on a whole might be more mature in judgement than many of the students in the master's degree program. Opinions of more advanced students are more likely to be relied upon in assessing quality. In some cases the duration of the students at the institution in a particular department will have to be weighed. The value of the predominantly part-time student's evaluation probably will be equal to that of the full-time student. Perhaps the student in residence will have a totally different outlook on quality than his commuting part-time colleague.

The alumni dimension suggests an indicator of program quality which is used extensively by some master's degree programs as the number of master's recipeints who have earned doctorates at other institutions. The variety and types of degrees and awarding institutions are assessed along with their dissertations.

Thus, it appears to me that it is desirable to go forward with the application of assessment of graduate education at the master's degree level using the multidimensional approach of ETS/CGS.

If it is necessary that graduate schools show that they are engaged in a substantive systematic review of their master's programs, and that the use of these reviews are utilized in making decisions about the program and the school, the methodology under discussion can provide such review.

The methodology can be modified for use at the master's level. In my opinion, it can be used with other procedures for program evaluation.

The methodology has captured the imagination of faculties at several institutions.

Perhaps the CGS/ETS methodology for assessing
quality applied to the master's degree
level is like Sears Roebuck Co.,
"It has almost everything."

Or perhaps the multidimensional approach
is like Bayer Aspirin,
"It Works Wonders."

Or like Tide, "It get the stains
out that others leave behind."

Or like VO Hair Spray,
"It holds through all kinds
of weather."

And finally, like
Alka Seltzer,
"Try it,
you'll like it!"

Herbert Weisinger

Though I am the kind of photographer who can expose a whole roll of film cheerfully oblivious to the cover still on the lens, I got it into my head that I wanted a 35 mm. SLR. I consulted my friend's and, naturally, each one gave me a different piece of advice. Still, no problem I thought: I'll read the ads in the photo section of the *Sunday Times*. It took me no more than a single issue to discover that there are some 80 SLR models produced by about 30 manufacturers and sold at different prices by an equal number of discount houses in New York alone. Nothing daunted, I began to read the advertisements in the magazines devoted exclusively to photography, and what with the color shots of unbelievable landscapes and equally unbelievable semi and undraped females and claims of utter uniqueness in design and construction, I became paralyzed by too much choice. Luckily, I latched on to a quarterly consumer guide to cameras which listed each model, detailed its specifications, reported on its tests of some 20 performance characteristics, gave the price, and made its recommendations. I studied these carefully, thankful that my doctorate had given me a good research preparation, made my choice, and determinedly marched off to the nearest discount house where I promptly bought a model I had not even thought of, thanks to a salesman astute enough to appeal to the snob in me.

Now poorer than I had intended to be and possessed of a camera so sophisticated I am afraid to take pictures with it, I realized I was not unlike the student trying to make up his/her mind about which graduate school to attend. He/she talks to his/her friends, he/she reads the catalogues, he/she consults the various guides, and finally goes to the school which offers him/her the most money. That this may be the wrong choice for him/her and that the large sum he/she thinks he/she is going to get has disappeared in the fine print which he/she didn't read or didn't understand or may not even have been printed—this he/she doesn't realize until it is too late.

There is a moral to this dreary tale and it is this: The purpose of assessment and of ratings is not to enhance institutional and faculty morale and ego but to provide consumer protection to the student. Unfortunately, there are at the moment no quarterly consumer guides which list and test the performance characteristics of graduate programs which a student can buy and study. To be sure, no profession has been more devoted to internal evaluation. At Stony Brook, for example, every graduate program undergoes external review every five years but the results are not made public. I need not tell this audience how difficult it is to keep the guild report mentality out of the review process and how even more difficult it is to implement the recommendations, often so cunningly concealed in the rhetoric of praise that only deans, but apparently not the faculties of departments, can see them.

It is in this context that the doctoral review project of the Board of Regents of the State of New York acquires significance. The review process takes it start from the report on the Regents' Commission on Doctoral Education which was chaired by

Robben Fleming of the University of Michigan and which was issued in January, 1973, under the title of *Meeting the Needs of Doctoral Education in New York State A Report with Recommendations*. After a detailed study of the resources for, and needs of, doctoral education in the state, the Commission made nine recommendations, of which the third read: "The Regents should establish special committees to review the quality of and need for doctoral programs in selected disciplinary areas. Only programs meeting standards of present or potential high quality, and need should be offered." The report was accepted by the Regents in a position paper of August, 1973, which, among other objectives, mandated: "The review and evaluation of doctoral programs by the Commissioner of Education, in close consultation with eminent out-of-state consultants and also with the state's academic community, according to criteria specified by the Regents. This will be done statewide on a subject-area by subject-area basis, following which the programs will be placed in one of three categories: (a) high quality and need- to be sustained, (b) intermediate quality and need- to be put on probation for three years and reviewed again, and (c) inadequate quality and need- to be phased out over an appropriate period of time." Finally, the Regents concurred with the Commission's enunciation of the general principles underlying the statewide evaluation of doctoral programs, that is, the factors which constitute high quality, need, and appropriateness of programs for students' career aspirations.

Before I describe the review process itself, let me try to clarify the role of the Regents. The Board of Regents is constitutionally responsible for all education in the State of New York, from pre-kindergartern to licensure of the professions. No educational program, whether offered by a public or a private institution, may be given within the state which does not have the prior approval of the Board. Similarly, having the power to authorize, the Board has also the power to deauthorize, as the courts have recently determined. Consequently, when it required the Commissioner of Education, who is its executive agent, to review the doctoral programs in the state, it placed its full legal authority behind the process: programs were to be continued, placed on probation, or eliminated. I do not know whether other states have constituted such an authority but I rather suspect that no other state has given a single body such exclusive control of all the educational activities which are very broadly conceived and which are carried on within it.

The review process begins two years before the final decisions are made by the Commissioner, and consists of successive stages, twenty in number. In the fall of the year preceding the review, a questionnaire is sent to each of the departments involved. This questionnaire has evolved over the years in which it has been in use and is an essential document in the review process. It calls for a description of the program in terms of its objectives, strengths, and weaknesses; it asks for the submission of previous internal review statements and, especially, for evaluations of teaching. The graduate program under consideration is expected to be described in detail: requirements, supervised teaching, relations to other programs and other institutions, ancillary activities such as conferences and visiting professors, relations with undergraduate programs, and the like. The second section calls for a statement of financial support: student support, faculty salaries, and all other resources, including external support. Following this, the calibre of the faculty is examined: research, publications, activities in professional organizations, teaching, promotion and tenure standards and procedures, faculty recruitment, and so on.

Section five is concerned with students: analysis of applications and admissions, calibre of students, number of students, advising and counselling, placement, part-time students, minority students, through-put rate, quality of dissertations, faculty and student relationships, and the like. The final section asks for a survey of facilities and services supportive of the program, including library holdings, lab and office space, computer services, and non-teaching professionals. Thus, the department is in effect forced to make a thorough self-study of itself: what it intends to achieve, how well it does it, what obstacles it has to face, in short, its strengths and weaknesses; the result is a not insubstantial volume which is carefully studied and referred to at all stages in the review process.

At the same time, names of distinguished out-of-state scholars qualified to review the programs are solicited from the institutions involved and from professional organizations. I am sure the other graduate deans in the state do what I do: ask the departments to provide the local lists which are collated and compiled in Albany and then sent to the departments for review; names not acceptable to the departments are crossed out. Given the size of the state and the number of programs under review, it is obviously not easy to find a sufficient number of qualified reviewers willing to spend the time and effort it takes to cover all the programs in the detail called for. Once the required number has been reached, two kinds of committees are formed: site visitors who spend two days on a limited number of campuses and whose job it is to report on what they find *in situ* and the rating committee of five members which reviews all documents and makes its recommendations to the Commissioner via the Doctoral Council. The work of the rating committee is time-consuming and demanding: it reads all the reports, meets with the Doctoral Council on several occasions, may meet with departmental representatives, hears appeals from institutions which challenge its recommendations, and in effect determines the rating each program receives.

The site visit provides the rating committee with an on-the-spot description of the program under review in actual operation which supplements the department's own picture of itself. The site visitors do not evaluate; they describe; and what opinions they may express, either in the course of the visit or in their report, are not necessarily those which the rating committee may ultimately arrive at. The site visitors do not see all the programs under review and they are subject to pressures of personal contact. The rating committee is charged with seeing all the programs in the state as part of a comprehensive system of graduate education and their perspective is determined by this statewide responsibility. The site visitors' report on a program is sent to the graduate dean of the institution for correction of factual errors only, while the President of the institution involved is given the opportunity to make his comments on a broader scale. Essentially, this is his opportunity to defend the program, should the report be, in his judgment, less than complete and fair. This stage also gives the institution the opportunity to withdraw a program from consideration by requesting withdrawal of registration, though in practice a program may be withdrawn at any time prior to the Commissioner's final decision. After the site reports are in, the rating committee examines them in conjuction with the Presidents' responses from the point of view of the needs of the state as a whole and meets with the Doctoral Council to discuss the application of the general criteria mandated by the Regents to the particular discipline under consideration. The committee then writes a draft statement covering the status of the discipline, seen both nationwide and statewide, as well as individual draft reports on each institution under review. These are sent to the Presidents for correction of factual errors and to members of the Doctoral Council for comment. The rating committee writes its final reports in the light of the responses; all evaluations are sent directly to the Commissioner while the individual institutional reports are transmitted to the Presidents who are asked to review the revised report for fullness, fairness, and equity. The Doctoral Council, having already received departmental profiles and with site reports to hand, is now convened, with the members of the rating committee serving as resource people, and votes on each report. In addition, institutions which wish to appeal the rating committee's recommendations appear before the Council to argue their cases, after which the Doctoral Council makes its own recommendations. The Council's final recommendations are sent to the Commissioner who in turn transmits them to the Presidents who may wish to respond once more to the Commissioner. He then requests, within a set period, ordinarily 90 days, detailed institutional plans in regard to the improvement of the involved program. Depending on whether the institution is able to provide a course of action which, in the Commissioner's judgment, satisfactorily addresses all the problems he has identified to the institution, he will either so notify it or consider other courses of action and inform the institution of his decision. The review process ends at this point.

I have several times spoken of the Doctoral Council. Just as the consequences of the review process could not be brought about without the legal authority of the Board of Regents behind it, so would the process itself lack the respect and acceptance of the academic community in the state if it were not for the role of the Doctoral Council. The Council consists of the graduate deans of representative graduate institutions in the state: public and private, large and small, old and new, church-related and secular. They are appointed by the Commissioner for specific terms of office. Given the history of higher education in the State of New York, with its long tradition of private institutions, its mixed private-public sector as at Cornell, its very young publicly-supported system of higher education, its many church-related institutions, its various financial programs for the support of both public and private schools, and, above all, its recent financial crisis, it is just short of a miracle, at least to me as a member of the Doctoral Council since virtually its inception and as a participant in the development of the review process, that the graduate deans, coming from institutions which would appear to an outsider to have every reason to be at each other's throats, should in so short a time have put aside their differences and have stood for and made clear to the Regents and to the academic community at large that they had but one responsibility, and that was to the quality of graduate education in the state, regardless of institutional affiliation. I believe that without that commitment by the graduate deans the review process would surely have failed. I can assure you that the Doctoral Council has had to make many hard decisions, and more than once a graduate dean has been in the position of having to choose between institutional loyalty and a rating committee recommendation. I think you will find that record of the Doctoral Council speaks for itself.

Since 1973, ten disciplines, Chemistry, History, Physics, Astronomy, English, French, German, Spanish, Mathematics, and Philosophy have been reviewed; two, Sociology and Political Science, are undergoing review this year; and two more, Economics and Anthropology, are already preparing for review next year. The first re-review, after the probationary period of three years, that of Chemistry, took place this past spring. At this meeting, the Doctoral Council voted that it would recommend programs as either acceptable or non-acceptable, thus eliminating continuation of probationary status, once the three-year grace period for strengthening a graduate program had expired.

The results of the reviews of the ten programs so far show that there have been 27 closures. But, and this is the significant point, all but five of these were closed on the initiative of the institutions involved themselves. Thus, the review process has enabled institutions to take the decisions which, without it, they could not, for a variety of reasons all too familiar to this audience, take. Nor have the reasons for closure always been those of low quality: in some instances, it was decided to use scarce resources elsewhere; in others, there have been substantial shifts in institutional mission. And for those who are concerned that the review procedure has an inherent bias in favor of the private, well-established, elite institutions, a few statistics are in order. Altogether, 126 programs in 10 disciplines have so far been reviewed; of these 70, or 56 percent, were judged high quality; 29, or 23 percent, were termed potential high quality and placed on probation; and 27, or 21 percent, were closed. The average score for 14 privates was 1.56; for 5 publics, 1.51; for the 19 altogether, 1.55. For institutions founded before 1900, the average score was 1.61; for institutions founded after 1900, 1.43. For institutions with 14,000 or more degree credit enrollments, the average score was 1.61; for institutions with less than 14,000 the average score was 1.48. Finally, to give you a quick over-view of the size and diversity of graduate education in the State of New York, there are 19 universities offering graduate degrees, with a total degree credit enrollment in 1976 of 210,397, 69.56 percent in the private sector, 30.44 percent in the public. The total graduate credit enrollments for the 19 universities as of 1976 were 89,636, of which 40,256 were full-time and 49,380 were part-time. The total graduate credit enrollments in the private sector were 70,002 or 78.1 percent, and for the public, 19,364 or 21.9 percent. The size range runs from a total graduate credit enrollment at NYU of 20,379 to 102 at Rockefeller University. And a little over two centuries separate the founding of Columbia in 1754 from the establishment of Stony Brook in 1962.

I am sure that by this point the defects in the process have already occured to you. It is cumbersome, expensive, time-consuming, and bureaucratic. The quality and perceptiveness of reviewers vary considerably both within disciplines and *vis a vis* disciplines so that it is virtually impossible to maintain a single, consistent set of standards across the range of so many individuals and so many disciplines; some rating committee members have been narrow, some eccentric, and some too tender for the good of their own disciplines. The mass of materials collected has become so large one can scarcely see them visually and comparatively. And, with the best will in the world, all involved in the process have, in the end, tended to equate the quality of a program with the scholarly reputation of its faculty; we have not been able to avoid the pitfall of peer evaluation. Finally, speaking for myself only, I regret that the results of these endeavors is not made public. Where public funds are employed, and, in the end there is no real distinction between private and public money since it all comes from the citizen one way or the other, public accountability and public disclosure must accompany them. I think the prospective student, the prospective employer and the public would be better protected were the results of the review made easily available. At the same time, the very fact that programs are withdrawn means that they are no longer being offered and thus protection is afforded negatively, so to speak.

Two conditions appear to be necessary for an effective review program. One is the consent of those being reviewed, as symbolized by the Doctoral Council. The other is the presence of an external agency, responsible for, but not directly involved in, the educational process and with the power to back up its decisions, as, in the New York situation, the authority of the Regents to deregister programs. It is not enough to institute a review process; the review process must be seen to have real consequences.

I am afraid that the time when the academy could view itself as a self-perpetuating, self-regulating, and self-validating profession is now past. Watergate has exposed the failure of the legal profession to regulate itself; the soaring costs of health care have drastically impugned the right of the medical profession to self-determination; and the crisis of higher education is forcing, and will continue to force, an ever-sharpening scrutiny of the assumptions, practices, and mores of the teaching profession, particularly in an atmosphere of public skepticism of the value of such education, whether in monetary, intellectual, or psychological terms. Our situation is such that the struggle between ratings and assessment, for the moment underground and expressed, when it surfaces at all, in the most muted terms, seems to me a diversion, just as our fulminations against the bureaucrats in Washington and in our state capitals. Our resistance to centralized administrations both at the state and local levels, our reluctance to experiment with new forms of educational effort to meet the changing needs of a changing population—all these are diversions which dilute whatever strength we now may have and turn our attention away from the one question we must answer if we are to survive, let alone grow. That question is simply stated: What is wrong with the strongest and wealthiest nation in the world today when it cannot usefully absorb into its economy a mere 30,000 doctorates a year out of a nation of over 200,000,000? If ever we needed the training and dedication of those young people, the time is now, yet we are forcing them into disillusion, distrust, and, worst of all, disuse. In the answer to that question lies our ability to place our students in positions for which they were trained, which will give them pleasure and society the benefits of their skills, which will enable us to accommodate the demands of women and the minorities without setting black against white, women against men, and which will enable us to open our doors wider rather than shutting them as we are now doing, thus denying talent, wherever it may be found, its rightful opportunities. We have allowed ourselves to be shrunk into an economy of scarcity when we should be expanding in an economy of abundance. The simple fact is that the money is there, but the question is: Is it going where it should be going? Both for the sake of society and for itself, the academy must help find the answer.

When I spoke of expanding, I did not at all mean putting on weight. That we have done without regard to our health as John Ryan's recent statistics painfully show. Talent is ill served by the proliferation of the shoddy. The multiplication of programs in the last decade has certainly increased our numbers but it is far from certain that that increase in numbers has been accompanied by a corresponding increase in quality and in the ability to meet the needs of society. Nor are we likely to be listened to if we are seen as prime examples of the very attitudes and practices that we are so quick to condemn in others. For all its faults, then, some such review process as that carried on by the Regents of the State of New York is indispensable if we are to keep our health.

Concurrent Workshops
Wednesday, November 30, 1977, 3:45 p.m.-5:00 p.m.

ASSESSMENT OF QUALITY IN MASTER'S DEGREE PROGRAMS

Moderator: Bernard J. Downey, *Villanova University*
Mary Ann Carroll, *Indiana State University*
Herwig G. Zauchenberger, *University of Missouri-Kansas City*
Recorder: Giles T. Brown, *California State University, Fullerton*
Resource Person: Robert Altman, *Educational Testing Service*

Bernard J. Downey

We have heard the presentations and discussion of the previous plenary session. I believe it is fair to say that all of us now assembled in this particular workshop have as one of our prime concerns the quality of master's degree programs. The three panelists here have—in planning—attempted to divide the subject in such a way so that there will be a minimum of overlap in the presentations.

In recent years, both regional and national meetings of graduate deans have looked at some of the obstacles to maintaining quality control in master's programs. Usually the characteristics of such quality have been implicit in these presentations. Emphasis in these previous discussions has been on conditions—whether exterior or interior—which might make it difficult to achieve, maintain, and enhance quality. Such conditions might include pressures from state agencies, from the business community, competition for resources within the institution, competition from other institutions. This afternoon we are going in a somewhat different—perhaps more basic—direction in that we are asking ourselves: "What indeed are these characteristics of quality and how do we measure them?"

Certainly, the recently revised policy statement "The Master's Degree" issued by the Council of Graduate Schools is a sound document which makes the case for quality master's degrees. Let me first read to you a few of the more significant statements concerning such quality:

- "Broadly speaking, the master's degree indicates that the holder has mastered a program in a particular field sufficiently to pursue creative projects in that specialty."—Relative mastery of a field capability for creativity.
- "The degree should be awarded for completion of a coherent program designed to assure the mastery of specified knowledge and skills, rather than for the random accumulation of a certain number of course credits after attaining the baccalaureate."—Coherence of program.
- "Graduate schools of high quality demand the investment of additional resources beyond those normally required for the undergraduate curriculum." —Additional resources.
- "A college or university should initiate a master's degree program only when demonstrable need exists and when the institution's resources and/or special traditions insure it can provide a program of merit."—Need, and/or special tradition in addition to resources.

In our ranks there has been a growing concern for the quality of our master's programs. More and more attention is being given to the means for best securing, maintaining, and enhancing such quality. As we now know very well, the recent CGS-ETS study has been devoted to the Assessment of the Dimensions of Quality in Doctoral Degree programs.

This study came about partly because of the dissatisfaction of many institutions with the single dimensional peer evaluation used in the Roose-Anderson and Cartter reports. This dissatisfaction was evident (mainly in the doctoral granting institutions especially) among those whose ratings were not very high or absent altogether. I believe that most of us here are convinced on rational grounds that a multidimensional approach would tend to give a more accurate evaluation of program quality. Those of us associated with institutions whose major post-baccalaureate degree is the master's degree have been following with considerable interest and expectation the development of this multidimensional approach.

The Clark study has raised questions concerning the identification of the Dimensions of Quality in master's programs and how best to assess them. Dean Rogers spoke to this point in the plenary session. I would now like to take a few minutes to outline what I believe are the requirements for quality master's degrees, particularly for those in the more traditional fields. I would also like to comment briefly on the possible adaptation of the multidimensional approach to the assessment of such quality. So, I ask the question: "What are the requirements for quality master's degrees?" And, I believe the reply goes something like this:

Quality degrees require:

1. Quality faculty
2. Quality curricula
3. Necessary resources in library and laboratories, computer services, etc.
4. Quality students
5. Sound administration, and
6. The necessary support from the higher administration.

1. *Quality Faculty*

Faculty members should have the Ph.D. or other comparable terminal degree. They should be dedicated teachers with special expertise in the content and form of graduate level courses. In a given program it is essential that the different specializations of the professors to be such that a wide variety of sub-area be represented. The faculty should be productive scholars with the emphasis being on quality rather than quantity of publications. The faculty should be interested in directing master's theses and demanding in their requirements for successful completion of such theses.

They should be active both in curriculum development and in student advisement. Faculty members should attend the meetings of and participate in the activities of professional societies, including the holding of office in such societies.

The greatest possible percentage of courses should be taught by the full-time faculty.

2. *Quality Curricula*

The first requirement for a quality curriculum is the establishment of well-defined program objectives which should be carefully spelled out and show an awareness of current developments. These objectives should be consistent with the general objectives of the institution.

The curriculum should be developed based upon these objectives. It should encompass a reasonably well-defined and recognized area of advanced study. There should be offerings of sufficient number and breadth, lectures, seminars, and independent studies, to insure orderly and efficient completion of course requirements by the students.

There must be a creativity component. Ordinarily, in the more traditional fields this would take the form of a master's dissertation although modifications of this form developing from independent studies, seminars, etc., might also satisfy this requirement.

A comprehensive examination which demonstrates not only overall knowledge, but also the student's ability to integrate this knowledge should be included.

There should be an effective means of assessing student progress which should be monitored periodically to insure that satisfactory work is being done and to provide the faculty opportunities for student guidance.

3. *Resources*

Quality master's degree programs require the necessary physical and fiscal resources to carry out the program objectives. These include appropriate library holdings, computer facilities, laboratory and other physical facilities, including adequate classrooms, seminar rooms, and offices, necessary equipment both for instruction and research and the necessary workspace to permit proper advisement and tutoring.

In addition, institutional funds should be sufficient to support faculty research and to provide other appropriate forms of faculty development such as sabbatical leaves and summer research grants.

4. *Quality Student*

Each graduate program should have a sufficient number of students to allow for the mutual interchange and stimulation needed to enhance the quality of that growth, and also for the comparative performance evaluation needed to properly assess student progress.

Admission standards should be carefully defined and only those students should be admitted in a given field who can be expected to complete successfully the degree requirements in that field. While provision may also be made for conditional acceptance of students with potential but without an outstanding undergraduate background, only those students who subsequently meet the requirements of the curricula should be allowed to continue in the program.

There should be carefully defined standards for student advancement in the program and for graduation.

5. *Sound Administration*

Overall administration of all graduate programs should be the responsibility of the graduate dean. This responsibility should be shared by the graduate faculty who should be clearly involded in the development of general policies and procedures as well as in curriculum development and program decisions.

There should be a separate institutional unit called the Graduate School or Division of Graduate Studies or some such, in which the dean will be able to handle effectively the responsibilities for the administration of the graduate programs, implement the policies and procedures developed via the graduate faculty and insure maintenance of high academic standards.

The graduate dean should be vigorous leader not simply a facilitator. He should not only carefully monitor the departmental administration of programs, but also be alert to the needs of both the university commmunity and the larger community with respect to the development of new programs and modification and even possible elimination of existing ones. He is also responsible for the maintenance of good records, the efficient use of university funds and provision for student financial aid.

6. *Support from Higher Administration*

The university should demonstrate support for the graduate programs not only by providing the necessary structure within which these programs can be administered efficiently and effectively, but also by providing the necessary funding for the additional physical and human resources needed beyond those required for undergraduate programs. Of key importance is the major evidence of such support which comes from policy statements which recognize the unique value of graduate education and the university's commitment to such education.

So—to sum up what I believe are the basic requirements for quality master's programs, they are: quality faculty, quality curricula, necessary resources, quality students, sound administration, and the support of the higher administration. In our discussion later on, some may wish to add or subtract from this list or perhaps change the emphasis on one or other criterion. If I may, however, let me presume for now that there are certain basic requirements for quality and that those which we have enumerated are among the most significant of such requirements.

Now, it is one thing to be able to say that a number of criteria must be met in order to insure quality. It is something else to determine whether or not the criteria are met.

Some criteria are easy to measure. The number of earned doctorates is found right in the university records. The adequacy of research equipment may not be so simple. Alumni success, certainly one means of identifying quality programs, may be there but hard to confirm, etc.

As you know, the CGS-ETS report "Assessing Dimensions of Quality in Doctoral Programs" developed a number of criteria which were judged to be important in the measurement of quality together with sources of information on these criteria.

The following chart from this report indicates this development.

Table 1.1*

Program Characteristics Judged Important to Quality and Some Acceptable Sources of Information About Them

	Sources of Information			
		Faculty	Student	Alumni
Characteristics	Records	Ques.	Ques.	Ques.
FACULTY				
1. Academic training	X			
2. Research Activity	X	X		
3. Research productivity		X		
4. Teaching effectiveness			X	X
5. Concern for student development and welfare			X	X
6. Involvement in program affairs		X		
7. Group morale or esprit		X		
STUDENTS				
8. Academic ability at entrance	X		X	
9. Achievements/knowledge/skills at time of degree completion	X			
10. Professional accomplishments of graduates				X
11. Judgments about program quality			X	X
12. Satisfactions with various aspects of program			X	X
13. Group morale or esprit			X	
RESOURCES				
14. Financial support—internal and external (including education and general financial aid for students, research)	X			
15. Library		X		
16. Laboratory equipment and facilities		X		
17. Computer facilities		X		
OPERATIONS				
18. Purposes of the program	X	X		
19. Course and program offerings		X	X	X
20. Admissions policies	X			
21. Faculty welfare	X	X		
22. Evaluation of student progress			X	X
23. Program leadership and decision-making		X		
24. Job placement of graduates	X			
25. Advisement of students			X	X
26. Student-faculty interaction			X	X
27. Internships, assistantships and other opportunities for relevant student experiences	X		X	X
28. Degree requirements	X		X	X
29. Relationships with cognate programs		X	X	X
30. Efficiency of degree production	X			

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* *Assessing Dimensions of Quality in Doctoral Education: A Technical Report of a National Study in Three Fields*, Mary Jo Clark, et al., Educational Testing Service, Princeton, N.J.

It well may be that many of these items will work just as well for master's programs as they have done at least in selected instances for some Ph.D. programs. For example, research productivity, item #3. For a Ph.D. program—say in Chemistry—one might look at the number of articles in referee journals. This number over a period of years should be substantial. For master's-only programs, the number would be much smaller but still there would be periodic publications which would demonstrate ongoing scholarship. Now consider item #1-academic training. The Clark study indicated that holding of a Ph.D. was not a distinguishing characteristic for the Ph.D. programs studied. Essentially 100 percent of all faculty in this study held the Ph.D. degree. I submit that this may be very significant in distinguishing master's programs.

As we look down the list of characteristics used in the CGS studies, we recognize that most of these would have some applicability to master's programs.

On the other hand, there may also be—for master's-only programs—criteria other than those proposed in the CGS study which are more valid reflections of the quality of such programs. In this study, students and faculty alike stressed the primary purpose of the Ph.D. as being the preparing of scholars and/or researchers. Other possible purposes such as the preparation of teachers and other practitioners were considered not too significant in these Ph.D. programs. While it is true that many master's programs also contribute—at least in part—to the preparation of scholars, it is certainly recognized that a great many master's programs are designed primarily for the preparation of teachers and other practitioners. The difference in goals would indicate possible differences in the criteria used to indicate quality. Certainly in professional areas a much greater emphasis is to be expected not only on initial job placement, but on the long-term success in holding positions attained and to moving up the ladder. The perceptions of employers—school district administrators, industrial managers, and others—as to the value of the programs being considered might perhaps play an important role in the measurement of program quality.

Related to this, item #10-professional accomplishments of graduates would certainly apply to master's graduates. In a great number of instances, the kind of accomplishment or the level of accomplishment might be different from that of doctoral recipients. Nevertheless, there must necessarily be some professional activities of the master's graduates which can be used as a distinguishing measure in the search for quality.

It may take a while, but I do believe that it is reasonable to look forward to the development of a set of criteria as has been done in the Ph.D. study which will be useful in the assessment of quality of master's programs. Perhaps one of our most serious challenges in the next few years will be the development of such criteria. The goal of quality master's work is certainly worth the effort which will be required to meet this challenge.

Mary Ann Carroll

I am very pleased to have this opportunity to share with you what we at Indiana State University are doing with the ETS/CGS assessment tool. I am hopeful that by telling you some of our approaches and our experiences you may see ways in which you too can adapt this tool for use on your campus. As was indicated earlier, this instrument was developed by some of the best minds available to the Council of Graduate Schools and to the Educational Testing Service and it has been tested at 25 institutions. It is likely that sooner or later—and probably sooner—all of us are going to have to answer some quality questions about our graduate programs. Versions of this instrument may be just what we need as we seek those answers.

While many of those whom you heard speak this afternoon on quality assessment of graduate education have been involved in the ETS/CGS project for a number of years, my first personal exposure to it—other than hearing the reports that have been made periodically at the annual CGS meetings—occurred in October of this year when I had the opportunity to participate in the CGS conference relating to the project. I must emphasize, therefore, that I am in no way an expert on the study, on the development of this assessment device or on its use. I am simply a graduate dean who was fortunate enough to be included in the October discussion of the instrument, who has reviewed the technical report and who is vitally interested in finding an assessment instrument that will, in fact, tell something about the quality of the graduate programs at my institution.

During that October meeting I talked with Mary Jo Clark and secured from her a copy of the technical report of the ETS/CGS study. I also discussed with her the possibility of using some of the questions ETS had developed for a review of our six doctoral programs. Dr. Clark asked that I write to ETS formally requesting permission to use some of their items and she assured me that she saw no reason such approval would not be granted, providing we were willing to give credit to ETS on all printed material and to share with them our experiences in its use.

Since our doctoral programs are in areas other than those involved in the ETS/CGS study and since it now appears that we may want to extend our use of the instrument to other programs, the experiences we are having may be of value to those of you interested in using an adaptation of this tool for a quality review of your master's degree programs.

This particular assessment device appeals to me primarily because it is a multidimensional approach to quality and because it has a program improvement potential absent from any other quality assessment methods with which I am familiar. Since each of us does want to insure that we offer the best possible graduate education to our students, this potential for improvement is one of the things that—in my opinion—makes the effort, the time and the tension involved in its use, entirely worthwhile. The dimensions that the tool addresses in a context of the purposes the institution sees for each of its programs are (1) faculty training and performance; (2) student abilities and achievements; (3) the quality of the resources; (4) the quality of the teaching-learning environment (this is the humaneness dimension); (5) the program contents and procedures; and (6) the alumni accomplishments. Data are sought relative to these six dimensions from students, faculty, department chairpersons and alumni.

The parameters of quality which ETS and CGS have identified make sense to me as does contacting these four groups of people for personal judgments as well as for factual data. I am glad to see students given an opportunity to indicate such things as the extent to which they would advise a friend with similar interests to come to their department; the extent to which they feel faculty members emphasize ways in which knowledge and skills in their field can be used to solve societal problems; the extent to which they find the department a stimulating and exciting place to study.

I am anxious to know how our alumni will respond to questions about the accessibility of faculty when they were students and how good or bad they thought the teaching they received was. I am equally eager to know what they are now doing and how helpful they feel their graduate programs were in preparing them for these activities.

I expect faculty answers to be enlightening in regard to questions such as—if I had a reasonable offer I would move to another institution; different personalities and scholarly points of view are welcome in this department. I am also interested in knowing how they will rate the scholarship and research ability of the faculty in their department.

The department chairpersons will have an opportunity to respond to questions such as: most faculty attend colloquia by departmental faculty members or visiting scholars; there is an increase in the number of applicants for admission to this department; there is a course or other systematic training program on college teaching for prospective or current teaching assistants.

A fifth questionnaire is included in the ETS/CGS tool which concerns the "departmental profile." Data about number of faculty in the department, external funding, degrees conferred, enrollments, admissions, etc., are solicited in the document.

Perhaps at this point it would be helpful if I went through the steps we have taken and share with you the responses to each which I have noted. I should preface these comments by telling you that we are currently undergoing a total institutional review at the request of our new academic vice president. Data of a quantitative nature have already been sought and qualitative information is next on the vice president's schedule. Thus perhaps more than most institutions we were "open" to a quality assessment tool such as the one from ETC/CGS.

Obviously the first step in the use or adaptation of this instrument at one's own institution is to get a copy of the technical report from ETS and to contact them for permission to use or adapt parts of it. As you know, ETS holds a copyright on all the materials. The response you may expect from ETS is as I have noted, likely to be positive under the conditions I indicated earlier.

My next move was to talk with our director of testing to see if, in the event the institution wanted to and could use some of this material, he would be willing to work with me in the preparation of questionnaires so that they could be machine scored and tabulated. He expressed great willingness to cooperate and this was essential to me for without his help it would not have been possible to conduct the study.

I next talked to the three chairpersons of our doctoral departments and the deans involved since that was the group with which I hoped to initiate the qualitative assessment study. I think starting with such a discussion is a reasonable approach whether at the doctoral level or a master's level. At least I found it helpful. I described for them, to the best of my ability, how quality in graduate education had been evaluated in the past, why ETS and CGS had undertaken this project and how the tool had been developed and tested.

I then distributed Xerox copies of the five questionnaires to each member of the group with the request that they study them and see if there were any items or any of the sections of the questionnaires that they might want to use for a quality assessment project in their departments. When we next met we discussed in general terms the appropriateness of these questionnaires for use at Indiana State University. In this discussion several things became apparent: (1) there was total agreement that this is a good instrument, that it touches significant dimensions of quality, and that much could be gained by its use; (2) there was a feeling of uneasiness about using it—were this not a time of tight budgets and a time of concern for ways to reduce expenditures, it is likely this feeling would never have emerged. Interestingly enough, conditions which necessitate qualitative assessment are the same conditions that arouse anxiety about such an assessment. If there were a way to assure faculty and department chairpersons that data collected by the use of the tool would never be used to disband or to discontinue programs, there is no question in my mind but that it would be enthusiastically supported. That, of course, is not possible. While my purposes in assessing quality are entirely for understanding and for program improvement, I cannot promise that the data may not be used by others for other purposes. Nonetheless, the chairpersons and the deans felt the potential it has for identifying our strengths and weaknesses and for self-improvement make the use of this device worthwhile.

At this point I started to work with the department chairpersons on an individual basis. The department faculty reviewed the questionnaires and then I discussed each with the chairperson so that only those items would be included in any questionnaire which that department felt would be helpful.

While this process has not yet been completed it does appear that with a few corrections the student questionnaire pages 1-4 will be acceptable to all the departments as will the open-ended question in the end.

I have also had requests that an item or two be added to the student questionnaire. For instance we want to be able to identify the responses of doctoral candidates from those of students just starting the programs. If this questionnaire is used at the master's level an item will need to be added so that data may be separated in terms of part-time students and full-time students.

It appears that for our doctoral students the questionnaire will be distributed through the seminars which are required of all such students. This will eliminate the necessity for addressing and mailing the forms.

The alumni questionnaire with a few corrections and the deletion of an item or two is apparently acceptable to the various departments. We will try to reach all of our Ph.D. alumni with the questionnaire although this will present some problems in terms of up-to-date addresses. Should we later apply this tool to our master's degree programs, we will obviously use only a sample population.

The items used from the faculty questionnaire are likely to be different for each department as are those for the department chairperson and the for the department profile.

From all of this, it should be apparent to you that I am determined not to impose the ETS document or any part of it on a department. My assumption is that to the degree the department wants to undertake a quality assessment and wants to obtain certain information, it will face the data collected squarely and use them wisely. Only when these things occur does an assessment tool hold a program improvement potential and this is my goal.

Within the last two weeks I have taken my discussion of the ETS/CGS project and the five questionnaires to the Graduate Council to solicit comments from that body on the appropriateness of this tool for wider use. Again, the Council was overwhelmingly in support of the quality dimensions which ETS and CGS have identified. Further, the Council has asked its chairman and me to meet with the vice president to see if some adaptation of this instrument may be useful to him in his university-wide review. Should the vice president be interested in doing this it will, of course, be necessary for me to get back in touch with Dr. Clark and ETS to seek permission for this greater use of the material. I suspect we would be well-advised to complete the use of the instrument with our six doctoral programs before we undertake a broader application of it. Whether or not this is possible will depend on the institution's urgency for qualitative data.

I recognize the fact that, unlike the ETS/CGS study, we will not come out with data that are comparative in nature because what we are doing we are doing in isolation. At the same time it does appear to me that because of the fact that the answers to many of the items in the questionnaires are reported with a number from one to four (strongly disagree to strongly agree) we will get some sense of the strengths and weaknesses of various dimensions of quality for each of our programs.

Because of the large number of items in each of the ETS/CGS questionnaires, we will—upon the completion of our study—have a great deal of data with which to deal. Some of what we learn I am sure will please us; some will not. However, in acknowledging and accepting both, we at Indiana State University will be in a better position than we previously were to capitalize on our strengths, to eliminate our weaknesses and in so doing to improve the quality of our graduate programs.

Herwig G. Zauchenberger

I was asked to comment briefly on the question of quality-related indicators that may pertain to professionally-oriented, as well as to non-traditional (or external), master's programs.

The task turned out to be more multifaceted than I had anticipated and a thorough assessment would have taken more time than I have available. I shall, therefore, confine myself to brief and somewhat random remarks on the subject.

As I reviewed some of the more recent pronouncements in speeches, papers and other literature on external degree programs and the so-called "non-traditional" mode in general, I could not help being struck by the semantic range of the term "non-traditional" in its current usage and by the lack of clarity (or agreement) as to where "traditional" ended and "non" started. This depends, of course, in part on what side of the fence you are on; and there will, necessarily, always be a zone of some overlap. But, what does "non-traditional" mean, really? Different from what we are used to, but not necessarily worse, perhaps (or definitely) better? Or, at the other extreme, diametrically opposed to the traditional mode, which stands for quality, and therefore *the* culprit for the erosion of quality in graduate education? I see reflected in this debate the necessary ingredients of progress: our inherent belief in the good of change and, simultaneously, our recognition of the need for protection of an established and successful educational enterprise in the "traditional" sense. In the process, "innovation," "experimentation" and "flexibility" will be the battle cries of those preaching change and sensitivity to "societal needs;" and the olympian pronouncements from the other camp will advertise the intrinsic and proven values of *sine qua nons* of "real" graduate education as practiced on ivy-covered "residential" campuses (in contrast to commuter or urban campuses). A further inevitable consequence or outgrowth of this confrontation, as is the case in the "real" world, is the intrusion of entrepreneurship and permissiveness in the educational process on the one hand, and a stiffening of conservative positions on the other. Large metropolitan areas, in particular, become profitable target territories for *external* master's degree programs, especially in such fields as Business Administration and Education, which often require few contact hours, allow excessive credit for prior experiential learning and short/mini courses, engage frequently unqualified local faculty, and may engage in other questionable practices such as the laundering of credits. Residential schools, in turn, may shy away from experimentation in instructional delivery altogether and are apt to reemphasize insularity assuming, as they think they must, the role of having to hold or draw the line against further inroads into quality education. Caught in between, local urban schools, finally, have little choice but to tolerate cohabitation with the interlopers whose often questionable program offerings they cannot attack without being viewed by the local public as unresponsive to community needs and potentially self-serving.

Fly-by-night intruders and degree mills are obviously at one end of the spectrum and fossilized 19th century citadels at the other. There is much that is good and well-intended and makes a great deal of sense in the "non-traditional" approaches to learning, as proposed, for instance, in *Scholarship & Society*. In this context, let me quote Dean Atkinson of Oklahoma: "There is nothing so bizarre or educationally degraded off-campus that I could not find on campus if I were masochistic enough to search for it."

Given the reality of growing " irregularities" in regard to both on- and off-campus offerings and what were perceived as excessive flexibilities in degree requirements, the graduate enterprise saw its credibility and integrity in danger of being undermined by questionable practices. One of the results of this concern was, as you know, the appearance of several CGS-sponsored and endorsed statements of which three are of particular relevance in regard to our topic: "The Master's Degree," "Non-Residential Graduate Degree Program," and "Graduate Credit: Its Recognition and Transfer." Mary Jo Clark's summary of her assessment study, is, of course, central to our attempts to find reasonable guidelines and criteria in the evaluation of not so traditional offerings and programs and the assessment of their quality.

In my attempt to identify quality-related indicators, I shall limit myself to master's programs in which the majority of students do not aspire to obtain a doctoral degree. These are generally so-called terminal master's programs in professionally-oriented fields such as those leading to the M.B.A., M.F.A., or Master's in Music or Education. Thus, I shall not be concerned with, for instance an M.A. in Philosophy or the "intermediate" M.A. which is obtained often with minimal effort or as a consolation prize at a Ph.D.-oriented institution. In both instances, for reasons of the particular discipline (Philosophy) or the particular institution which emphasizes the training of Ph.D.-holding research-scholars, the use of the non-traditional mode is unlikely.

The trouble with evaluating non-traditional modes and their partial implementation *on* campuses and full realization in the external degree program is the fact that many of its basic assumptions and resultant practices have been met with a great deal of skepticism by the graduate establishment—a situation which makes it difficult to identify quality aspects since true quality is not perceived as really being present; (all we can do is try to curb the excesses resulting from practices which are dubious to begin with!). To quote from the recent CGS statement on Transfer Credit:

> "When . . . the generation of graduate credits becomes dependent upon novel education systems, highly compressed schedules, excessive reliance on adjunct faculty, inadequate library or laboratory facilities, and administrators unfamiliar with the values and expectations of graduate faculty, . . . caution must be exercised."

Change the recited list of "no no's" to their opposites (traditional education systems, regular schedules, reliance principally on graduate faculty, existence of well-equipped library and laboratory facilities and other educational resources, and administrators knowledgeable about the objectives of graduate education) and add to this list such other factors as: a select student body; frequent interaction between faculty members and student (and among students themselves); careful planning of the program of study, program coherence and close faculty supervision of academic programs; minimal transfer of graduate credit (none for experiental learning prior to program admission); a level of complexity, generalization and intellectual demand beyond that required for the baccalaureate; a systematic and periodic evaluation of programs, students and faculty; adequate fiscal and other institutional support; etc.—and you have a fairly comprehensive list of what have been historically considered indispensable but not easily measurable prerequisites (not necessarily guarantees) for quality that may well be both appropriate and feasible for the traditional self-sufficient residential university with a resident preselected student body and a majority of Ph.D.-level graduate programs.

Some of these criteria [Dean Downey also referred to them—such as adequate program planning, coherence and intellectual level; responsible supervison by qualified faculty; regular monitoring and evaluation of course offerings, faculty, students, and resources; availability of and/or accessibility to facilities and educational resources commensurate with the course/program needs, etc.,] have validity no matter what kind of graduate program we are talking about and whether it is offered on campus or elsewhere. Several other *desiderata* are not feasible for commuter or urban campuses, especially when we refer to professional, practitioner-oriented master's programs. It is in this context that it may be useful to review the potential benefits and deficiencies of a few of the non-traditional or "alternate" modes of instructional delivery encountered nowadays both off-campus and on.

I shall limit myself to a few of the major concerns: faculty; the nature of academic offerings and other learning experiences and credits received therefor; and student clienteles.

1. *Faculty:*

There is no question that departmental control must rest with an existent regular faculty, off or on campus. But there is also no doubt that certainly on the master's level in such fields as Business Administration, Education and the Performing and Visual Arts, and also in certain areas of Psychology, part-time, external practitioners (such as a school superintendent, a member of the local philharmonic, a business executive, or a practicing clinical psychologist) whose qualifications and commitment have been ascertained by appropriate institutional procedures and who has been hired to teach in special areas will enrich the teachings and curriculum of the discipline. Their qualifications may be "different" but of comparable calibre [to regular faculty] in their areas of expertise. By that very fact they provide an *added* dimension in the training process which undoubtedly benefits the student and future practitioner. Off-campus degree programs are apt to depend to a considerable degree on the "practicing expert;" if they rely primarily or exclusively on local "pick-up" faculty composed of practitioners and some high school or college teachers, the program standard is obviously no longer acceptable.

2. *Novel Instructional Systems and the Acquisition of Competency*
Less-than-traditional academic offerings and their scheduling, on and off campus, and other learning experiences outside the classroom and their assessment and measurement in terms of possible graduate credit has been a subject of discussion and disagreement for some time. Much harm has been done, I believe, by the proliferation of courses and workshops of every duration and frequently questionable quality in both on-campus and off-campus programs and by the overly generous and, at times, irresponsible graduate credit allowances by external degree programs for these short courses and especially for experiential learning prior to admission to the program.

There are, however, also sincere efforts of a growing number of faculty to give vitality and added strength to their instructional offerings by the employment of effective unconventional, experimental approaches. To give you one such "non-traditional" example: A professor of History conducted a short course in an old historic Missouri town where students studied and lived the old ways for several weeks. No loss in quality there! Many campuses and certainly those in metropolitan areas, have long ago responded to legitimate needs of the local student clientele by demonstrating flexibility in class scheduling, delivery site and instructional format. Most of our graduate courses at the School of Administration and Education, for instance, begin after 4:30 and run until 10 p.m. This late scheduling is a concession to the working student and in no way represents a potentially negative factor in the quality consideration of the program. With the city viewed as a laboratory, and resource for practical experiences, sponsored, that is, supervised off-campus experiential learning has a venerable tradition and has long been a valued component of the student's program of study. You know the examples I have in mind: externships, practica, field study, cooperative education arrangements, foreign study, and sometimes course- or project-related travel. There is little that is novel about these preplanned and supervised off-campus modes of experiential learning (whose importance, by the way, appears to be recognized by an increasing number of disciplines); but if we were to consider them as non-traditional, they would clearly have to be regarded as enhancing the quality of the type of programs we are concerned with here.

It should also be remembered that there have been modes of competency certification in certain areas which we have accepted for a long time: written and oral examinations; standardized national tests (such as TOEFL or GSFLT); competency statements from qualified judges on foreign language proficiency, computer programming and other mastery of research tools; and finally letters of recommendation from academic *and non-academic* referees.

As stated earlier, what sets off the non-traditionally oriented external degree program most dramatically from a regular on-campus degree program and for which these programs have been most heavily criticized is their generous certification and degree applicability of competencies, especially experiential learning, acquired *prior* to admission to the program. As to the awarding of credits for short courses, workshops and conferences of all types, content and duration, the situation nowadays does not seem to be that much different or better in regard to campus-based programs—despite local quality supervision.

In his paper entitled "Academic Credit for Experiential Learning and Its Impact on Master's Degree Programs" at the WAGS meeting last March, Dean Sparks makes reference to the efforts of Samuel B. Gould's Commission on Non-Traditional Study and the Cooperative Assessment of Experiential Learning (CAEL) in developing methods of assessing experiential learning and describes the many conceptual, technical and administrative difficulties encountered in the process. "Because there can be no opportunity to structure the learning experience," the task force on Graduate Credit concludes in the CGS statement of the same title, "to establish what the student must accomplish in the learning experience, to assess the amount of time devoted to the learning experienced by the student, nor to monitor the learning experience after the fact, no graduate credit should be granted for experiential learning which occurs *prior* to the student's matriculation in the graduate degree program."

I would certainly agree that until a valid and convincing assessment instrument is found, credit for such learning has no place on a program of study. We cannot prevent institutions which have confidence in their assessment procedures from awarding credit for experience of this kind, but such credit clearly should not be transferable.

Before I turn to Mary Jo Clark's list of quality indicators and assessment approach, a few final comments on the student clientele.

Student Clientele

In the urban setting, at least, students aspiring to a terminal master's degree are both older and employed and they are also generally concerned with practice, not scholarship. Take an M.S.W. or master's in Accounting student, for instance, or an aerospace expert retooling for a management position and thus seeking an M.B.A.; or a secondary school teacher deciding to improve his/her position by pursuing a higher degree; or an artist bent on improving his/her creative skill.

These students are career oriented, highly motivated, and favor a no-nonsense program approach to degree requirements. These not-so-traditional students make up a substantial percentage of our master's degree population in the 70's; they are responsible for keeping graduate enrollments so far from decreasing sharply as we approach the mid-80's; their number may increase—but their objectives will remain the same. If we want to keep them in our fold (and we may not want to) we cannot ignore their needs by insisting on preparing them for careers as scholars only and neglecting to provide them adequately with the tools and concepts indispenable for the well-trained practitioner. We must be able to offer a quality education for the professional within the context of the intellectual demands and breadth of graduate studies. Otherwise this student clientele may be lost to the university—or at least the graduate enterprise.

The quality indicators of the ETS study, as has been stated repeatedly, have particular validity for residential research-oriented Ph.D. programs but are not equally applicable to terminal master's programs, especially professional, practitioner-oriented often non-traditional programs offered at urban or community campuses or by institutions external to the site of program delivery. Using a weighting scale of 1, 2, and 3 (with 3 indicating the highest degree of importance) I have the following *very tentative* comments to make:

A. *FACULTY*

1. Student-rated quality of teaching:
   Applies equally if not more so to master's programs, professional or non-traditional. Rated 3
2. Mean number of articles/book reviews published last three years:
   Adequate publication output of regular faculty is desirable but measurable professional and creative involvement and output need to be added. Rated 2
3. Peer-rated quality of graduate faculty:
   Less meaningful and probably yielding not very usable results at institutions where the master's degree is the highest degree offered. Rated 1
4. Research Activity:
   Needs to be expanded to include "other scholarly, professional and creative activities." An important indicator but not as crucial as for Ph.D. programs. Outside grants received in national competition: not equally applicable to master's programs, especially in the professional areas. Rated 2

I would add the following indicators in the faculty section:

(a) Percentage of faculty with highest appropriate terminal degree. In contrast to doctoral programs, where there may not be enough variation in this category for reliable program comparison, this indicator should be useful for measuring the quality of master's programs, including those in the creative arts. Rated 3

(b) Percentage of "regular" faculty (compared to part-time/adjunct faculty). I have covered this subject at some length earlier in my remarks. Rated 3

B. *STUDENTS*

5. Undergraduate GPA:
   Also applies to master's programs; measurable artistic achievements (recognized locally, regionally or nationally) have to be added for the creative arts. Rated 3
6. Faculty-rated student commitment/motivation:
   Important but depends on the faculty member's "orientation" and expectations. The objectives of terminal master's students are different from the aspiration of those pursuing a Ph.D. Rated 2.

Possible additional indicator:

(a) Student "mix":
Percentage of full-time (compared to part-time students and percentage of recent graduates (compared to students with practical experience in the field.). Rated 2.

C. *RESOURCES*

7-9*

Adjusted to the needs of a terminal professional master's degree, these indicators are important. Absence of adequate resources in the case of external degree programs is one of their most serious shortcomings and precludes "exportation" of certain programs (those requiring well-equipped labs, for instance).

An additional indicator like "access to adequate resources and facilities for students and faculty" rated by faculty and students may be appropriate. Rated 3

D. *ENVIRONMENT AND ACADEMIC OFFERINGS*

10-14*

Equally valuable for professionally-oriented graduate students but not necessarily an indicator of quality. Working students in the professional fields are attracted to external degrees programs by the willingness of many of them to be accommodating to the students needs. Many students who are older, hold a job, and have a family, hope to get their (professional) degree within a minimum of time expenditure, at less cost and, at times, with only a minimum of effort expended in reaching the degree objective. Their ratings, I suspect, could be heavily influenced by the degree to which a program meets these non-academic objectives. Adjunct faculty, similarly, may be influenced by concerns of convenience rather than learning or scholarship.

As to number 14, which has to do with curriculum, an indication of prior credit allowed as postadmission requirements may be of some relevance.

The remainder of the indicators, other than numbers 16*, 19* and 20* (which are Ph.D. related), are equally applicable to master's programs, with numbers 17* and 18* being of special significance. Comparable indicators from recent master's alumni need to replace 19* and 20* (i.e., such other output measurements as CPA examinations, creative achievements, etc.) but item 16* would not be a "productive" indicator, certainly not in regard to professional master's degrees. In general, I feel that the development of criteria for measuring *output of* and by recent alumni of professional master's degrees may produce very useful results. Also the market perception of graduates, their placement, would probably be a good quality indicator.

In conclusion, let me remind you that the questions of quality that we are concerned with here, ultimately depend in large measure on the integrity of the institution, its faculty, and the students as well; the support *and* open-mindedness of its leadership; the authority delegated to the graduate organization; the effectiveness of a quality control mechanism; and other factors and determinants, not the least of which, in these times of creative retrenchment, are purely economic ones.

That's all I have to say at this time.

NOTES*

7. Faculty-rated library holdings relevant to the field.
8. Faculty-rated laboratory or other equipment needed for teaching and research in the field.
9. Faculty-rated overall adequacy of physical and financial resources for master's program in the field.
10. Student-rated faculty concern for students.
11. Student-rated environment for learning.
12. Faculty-rated compatibility of work environment.
13. Student overall satisfaction with program.
14. Student rating of curriculum.
16. Alumni rating of dissertation experiences.
17. Percent reporting program prepared them for career "extremely well."
18. Percent reporting current job highly related to graduate training.
19. Mean number of articles/book reviews published (by alumni).
20. Mean number of presentations at regional or national meetings (by alumni).

ASSESSMENT OF QUALITY IN Ph.D. PROGRAMS

Moderator: Herbert Weisinger, *State University of New York, Stony Brook*
Peter S. McKinney, *Harvard University*
Charles G. Nelson, *Tufts University*
Recorder: David S. Sparks, *University of Maryland*
Resource Person: Mary Jo Clark, *Educational Testing Service*

David S. Sparks

The discussion opened with very brief statements by several deans of current efforts at assessment at their institutions. One dean warned of the danger of designing evaluations of graduate programs that would serve to maintain the status quo. He urged careful consideration of the nature, purposes, and goals of the programs we are evaluating in the development of assessment techniques.

Another dean emphasized the opportunities for prompt and widely supported program change inherent in the assessment process and reported on some successes achieved at his institution, particularly in the encouragement of some interdisciplinary efforts.

A third dean reiterated his interest in evaluation and assessment as necessary to protect the consumers, students and the public, of our programs.

The discussion then became general and it was evident that very nearly all institutions represented at the workshop were engaged in some type of evaluation and assessment of graduate programs. Additionally a few are involved in a systematic state-wide review program. A dozen or more institutions reported that programs had been discontinued as a result of the process.

One of the more significant trends reported by several deans was the spread of the concept and practice of program review from graduate to undergraduate programs.

A recurring question, unanswered for the most part, was what disposition is made of the completed program reviews. Those most satisfied with the outcomes of the process were those who had succeeded in working the review reports into the resource allocation decision making process at their institutions. Many concurred with the judgment offered by one dean that we have long been involved in program review and assessment in the routine budget-building process, in the preparations for regional and specialized accrediting visits, in site visits by federal funding agency staff, and in the reviews we made each time we replace a department chairman, dean, or senior administrator.

There was general agreement that the subject is one of very real and immediate interest to graduate deans and that there is a need for increased information about what is being done, by what procedures, and with what consequences.

ASSESSMENT OF QUALITY IN GRADUATE PROGRAMS—RESEARCH/PRACTICE

Moderator: Irwin C. Lieb, *University of Texas at Austin*
Charles A. Asbury, *Howard University*
Ralph E. Morrow, *Washington University*
Recorder: Farrell B. Brown, *Clemson University*
Resource Person: Bernard V. Khoury, *Educational Testing Service*

Farrell B. Brown

The session was opened by explaining the purpose of the workshop; namely, to discuss the pros and cons and general applicability of the CGS/ETS study "Dimensions of Quality" as it pertains to quality in graduate degree programs, both research and professional. One of the panelists indicated he would first give his general views on quality assessments, would follow these specifics relative to the CGS/ETS procedures, and would end with concluding remarks.

a) General Remarks—A feeling of encouragement was expressed that the topic of assessment of quality is now being addressed in a concerted effort by CGS and ETS. The topic is considered especially germane to the Ph.D. in liberal arts and sciences, *i.e.*, the true research degree. Probing questions with potentially disquieting answers must be and are raised, *e.g.*, "Is the research Ph.D. relevant today when candidates may not be able to become involved in a research vocation?" The assessment process could be a means of addressing criticism raised by public officials and politicians about a lack of job market. Educators must face these facts realistically.

b) CGS/ETS Survey—The procedures appear to be adaptable to the M.A., M.S. and Doctor of Philosophy degrees regardless of the vocation but no confidence was expressed in their usefulness in the multi-dimensional or non-research degrees such as the M.A.T. or D.A.T.. While the form was considered helpful in surveys within an institution, it was deemed inappropriate for inter-institutional studies. A word of caution was expressed in use of the survey (or procedure) by external groups or agencies and an opinion expressed that public accrediting agencies, for example, may not use the procedures because of different definitions of quality. As far as its use by the "consumer," the speaker expressed a distinct fear of a misuse of the completed survey. Opinions of faculty, students, and alumni might be taken out of context and lead to distortions. The "consumer" is in need of hard data rather than opinions.

c) Concluding Remarks—Cyclical self-study efforts as called for in the procedures are often followed by lack of activity. A feeling of "what to do next" is often followed by no action which in turn is followed by resentment and criticism by the faculty over the "paper exercise." If positive activity is not forthcoming—and this may mean the dismantling of certain programs—the effort is self-defeating.

DISCUSSION

Question: What useful spin-offs are realized from such surveys, both at the intra- and inter-institutional level?

Response: Institutions with common features could use the CGS/ETS survey to compare one another and it could perhaps form the basis for inter-institutional cooperation.

Comments: Such surveys allow open-minded faculty to appreciate problems of administrators and thus it is a valuable exercise. It also helps administrators justify unpopular decisions.

At least one professional organization, the American Institute of Physics, is considering the CGS/ETS survey as a pilot or a background for professional society studies.

The study subjected many departments to a feeling of insecurity and it is debatable as to whether or not this is a beneficial result.

Question: Use of the CGS/ETS survey for professional degree programs appears to be difficult because quality does not mean the same as it does in the traditional liberal arts and science Ph.D., M.S. and M.A. programs. What are the panel's feelings on this observation?

Response: The observation is a valid one and the universities should see to it that there are no further intrusions into academic matters by professional accreditation teams. If necessary, the universities might have to assume the role of an adversary to the professional accrediting teams.

Comments: Outside professional accrediting societies have attempted to bring pressure on at least one university to use their criterion alone for quality. Fortunately, the professional criteria were deemed inappropriate by the faculty at the university in question. The professional criteria appear to be based on minimum standards only.

Those programs subject to professional accreditation are generally the weakest at the institution represented by the commentator.

Question: The so-called "hard data" are really not facts but may be numbers entered facetiously by faculty weary of surveys and questionnaires. More importantly, the surveys cut a cross-section at a given time and do not see a long range effect. For example, independent surveys show that only 14 percent of all Ph.D. holders in mathematics ever publish past their dissertation. Have any studies been made on sustained research and publications over a long period of time? Perhaps self-studies are overlooking an important parameter.

Response: The CGS/ETS survey examined departments of Chemistry, History and Psychology. The frequency and type of publications vary tremendously among these disciplines and a direct conclusion is not obvious.

Other general comments unrelated to specific questions.

- Self-studies in certain colleges of education were favorable toward the colleges except for undergraduates in those colleges. Is this perhaps an inverse function of the emphasis on graduate education?
- The weaker programs are loved by most students regardless of the discipline.
- Students tend to downgrade the departments with respect to individual

parameters in the CGS/ETS survey but in the final summary, they think it is a good program.

- How do weak programs contribute to stronger programs? Or, in other words, "Regardless of how bad department X is, do we need it?" Has this question ever been crucially examined? This question should be raised in any institutional self-study.
- In the CGS/ETS survey results, there appears to be no direct relationship between many input and output parameters. For example, the institutions where the faculty received their doctorate degrees and length of time since the degree was awarded do not appear to have any bearing on quality. Thus a collection of young "Ivy Leaguers" in a faculty does not correlate with and imply quality.

"Early Bird" Workshops

Thursday, December 1, 1977, 7:30 a.m.-8:30 a.m.

THE GRADUATE SCHOOL IN THE UNIVERSITY ADMINISTRATION STRUCTURE

Daniel J. Zaffarano, *Iowa State University*
Robert C. Amme, *University of Denver*

Zaffarano opened the session by noting that the first Graduate College in the United States was established over a century ago at Johns Hopkins. The German committee system for doctoral education was added to the existing English pattern of undergraduate academic colleges. For the last one hundred years American universities have attempted to resolve the question of how, in this superposition, can one most neatly involve the graduate college dean in the university administrative structure?

Those who state that there is no diversity and no innovation in graduate education should study the intriguing and ingenious ways in which American universities have attempted to cope with the problem of defining areas of responsibility for graduate deans!

Perhaps the most straightforward is to abolish the position of graduate dean. Indeed, the Universities of Chicago, Pittsburgh and Pennsylvania, for example, have chosen this route. Graduate programs are within the purview of the collegiate academic deans and it is argued that undergraduate instruction, graduate instruction, and research are activities of every faculty member, so that it is proper that the academic dean monitor all of these functions.

Some universities, like Harvard and Virginia, limit the activity of the graduate dean to the Arts and Sciences. Only in these areas is the Ph.D. given. Other departments or sections grant professional degrees. Utah State and other universities separate the functions of graduate deaning and administration of research into two offices. Duke, Ohio State, and others combine the functions and have a vice provost for research and graduate dean. Usually, when the functions are separated, the graduate dean reports to a provost or vice president for academic affairs. When the graduate dean is a vice-president, or vice-provost or vice-chancellor, he or she reports directly to the president. Universities like Cal Tech, Stanford, Wisconsin, and Penn State have graduate deans who have additional university responsibility for research supervision not indicated by title.

In Nebraska, a graduate dean exists at each of the state universities, and a system graduate dean is employed to coordinate these.

Graduate policy decisions are made in some schools by the graduate dean working with an advisory council of faculty members. In others, a graduate senate exists with legislative authority. Some schools have a graduate faculty which is a sub-set of the general faculty, with rigorous criteria for approval to supervise graduate work. In other universities, like Harvard, Chicago, Wisconsin, and the University of Iowa, admission to the graduate faculty is almost automatic upon employment at the assistant professor level or above.

Usually graduate deans are at least asked for their opinions on tenure and promotions. When graduate deans are also vice presidents they have additional input in terms of salaries and budget allocations.

From these examples, we see that there are many ways in which graduate deans can be involved in university administration. The authority of the graduate dean may be centralized of diffused. The dean may have a very small budget or a very large one. It is almost impossible to state that there is any one administrative structure better than any other for the graduate dean's purposes which are, in part, to

1. Act as the intellectual conscience for higher education in his/her university; establish a quality control system for students and their academic programs.
2. Monitor the process of *training* students to do research—the major added ingredient in graduate education, compared with undergraduate education.
3. Encourage the production of knowledge in the university, as contrasted to the systematizing and dissemination of knowledge, which are parts of the teaching function.

With so many possible configurations of administrative structures and functions, it is surprising that we still have so much in common to discuss! The conclusion may be reached that almost any administrative model will work satisfactorily if it suits a particular university and if the people involved in making it work are compatible.

As examples of structures that suit particular environments, Zaffarano described the operation of his office at Iowa State in which the graduate dean and vice president for research positions are combined. He cited the advantages of reporting directly to the president for the creation of an improved research environment in a university, and the importance of having a finite budget to aid the development of interdepartmental graduate programs.

Dr. Robert C. Amme, Associate Dean for Graduate Studies in Arts and Sciences at the University of Denver, described a structure that seems satisfactory for his smaller, private university. In this case, Amme reports to a collegiate dean but has university-wide responsibilities for direction and organization of research.

During the discussion that followed it was generally agreed that there is no optimal model for involvement of the graduate dean in a university administration. Many different concepts of the graduate dean exist in the nation, all of which work reasonably well, depending very much upon the tastes and preferences of people involved, the nature, size, and history of the institutions.

CREATIVITY IN GRADUATE EDUCATION

Wimberly Royster, *University of Kentucky*
John Guyon, *Southern Illinois University at Carbondale*

Dean Guyon opened the session by pointing out that this meeting was an outgrowth of the session on Creativity at the 1976 Annual meeting of the Council in Denver. Dean Guyon noted that he had proposed a complete workshop for the 1977 meeting consisting of three parts as follows:

Creativity in Graduate Education

a) Administrative Views
b) Faculty Views
c) Student Views

He further mentioned that Southern Illinois University proposed to tackle the student area, and seek others to deal with the other subjects. Dean Guyon then briefly discussed the results of a study on student views at Southern Illinois.

Dean Royster presented remarks on administrative input on creativity in graduate education, and the session was opened for general discussion.

A lively discussion followed in which a significant interchange took place among all persons present. The questions and the discussion focused on the three areas mentioned above. Interest was high in the group, and there was a strong feeling that there should be a follow-up workshop. Several expressed the idea that more research was needed and stressed that any subsequent session be based on collected data in addition to the opinions everyone held. Much discussion took place with reference to replication of the Southern Illinois University study using graduate students at a variety of universities and an extension of the study to include the opinions of faculty and administrators regarding the variables which promote creativity.

The clear consensus was to pursue the matter of creativity in graduate education within the framework of the Council of Graduate Schools.

THE USES OF GRADUATE STUDENT SUPPORT FUNDS

D.C. Spriestersbach, *University of Iowa*

D.C. Spriestersbach

While putting together my remarks for this session the thought struck me that the topic that we are gathered to discuss is quite fittingly relegated to an "early-bird session." That is to say that the question of "the uses of graduate student support funds" is certainly not now a burning issue in graduate education, nor is it recognized now as a "crisi "—*something* about which *something* must be done by *someone immediately*. Yet, in the true spirit of an "early-bird session," I predict that the question of "graduate student support funds" is, though not a burning issue, one which is warming up, and, in the context of the proverb that "the early bird catches the worm," I believe that it is possible that our dialogue about the issue now may enable us to validate some other proverbs such as "making hay while the sun shines" and "an ounce of prevention is worth a pound of cure."

Certainly those of you who are attending this meeting, who chose this particular session over the other three, who managed to appear here on this Thursday morning at 7:30 a.m. in New Orleans, at a location only a few blocks from the French Quarter must have some inclination to believe that graduate student support funds is a *more than worthwhile* topic for discussion. But, whatever your reasons are, I would counsel that you are truly ahead of the pack in your expressions of concern for the issue. Certainly there has been very little hub-bub nationally about the issue, that is, at least until very recently. Indeed the greatest single piece of evidence to indicate that student support has been a question of little concern is the great dearth in data related to it. Certainly much lip service has been given to the issue but no substance to speak of.

To make my point let me cite a few examples of difficulties one encounters when seeking information about graduate student support funds. In 1975 the Board of Regents in my State asked me to chair a Task Force on Graduate Student Opportunities. I will not go into the reasons for establishing the Task Force but the purpose of the Task Force's work was to determine for the three Regents universities in the State the answers to three questions: 1) How much does it cost the average graduate student to attend the university in a given year? 2) What are the typical resources available to that student to meet those costs? and 3) Are those resources sufficient to allow the student a reasonable opportunity to attend a Regents institution of his/her choice and to pursue satisfactorily a course of study leading to a degree?

Now this assignment appeared to all of us on the task force to be a relatively simple one to fulfill; that is, simple at first. We believed that the difficult part of it would be to determine just how much more support funds our institutions might need in the future based on projections from the present. But when we returned to our campuses and began trying to answer the two "simple questions" about the costs, and the extent of the resources to meet them, we discoverd that no one had the information. Moreover, we discovered that, when after about six months of intra-university research at all three campuses to generate the information, that which we generated was in a form for each campus that made it incompatible with the others. Furthermore, some questions were never answered.

To make a long story short, after about a year and a half of work, the task force submitted to the Board of Regents a report that addressed the issues as completely as possible and, indeed, more completely, I am confident, than any other produced in the country—primarily because (to my knowledge) no other report about graduate student support funds has been produced in this country that had this one's scale. This notwithstanding, the report was tabled by the Board for about a year and then quietly and permanently removed from the docket because, quite frankly, in my opinion the information it contained and the measures it recommended would have made the issue of graduate student support funds a "burning issue."

I will speak more later about some of the factors that are, I believe, destined to make student support a "burning issue," but right now I wish to continue building the case that the uses of graduate student support funds is a question thats time and the recognition of its importance has not yet come.

Anyone who has performed even a cursory survey of the field of student funding will observe that, relatively speaking, there is a great deal less information about graduate student funding than funding for undergraduate students. Moreover, he will observe that, if there is any reliable data base in the nation on the subject, it has been generated by the federal government. Yet, in an article appearing in *The Chronicle of Higher Education* (October 25, 1977) only two months ago, the reporter speaking about the head of the new student aid bureau in the Office of Education observes:

> ...one of Mr. Kornfeld's first requests was for a list of who receives the Office of Education's student-assistance programs—broken down by state and type of institution.
>
> Instead of a simple three- or four-page answer to what he thought was a "routine" question, Mr. Kornfeld received hundreds of pages of nearly undecipherable computer printouts.

> What seems to concern him most (the article goes on) is that, depite the number of years many of the student-assistance programs have been operating, answers to the simplest questions are hard to come by.

In other words, the data collection efforts of the federal government concerning the general use of student support funds met with about the same success nationally as our task force did in dealing with the use of graduate support funds on a statewide basis.

If you will bear with me a minute or so longer I would like to present two more examples concerning the lack of data about student support funds. My purpose for doing so is to point up the extent of the information problem and to begin to lay the foundation for a discussion of the uses of graduate student support funds within a context of some current dilemmas in graduate education. The first of the two examples is a reference in an editorial entitled "Consumer Information and Student Choice" appearing in *Change* magazine in May of this year; there it is noted that:

> A new study by the Chicago Scholarship Service shows that misperceptions about colleges, particularly with regard to financial information, continue to plague large numbers of young people. The failure of many colleges to provide exact information on financial resources seems, in fact, to be often behind the general criticism that colleges simply aren't sufficiently forthright.
>
> One sees the tip of the iceberg when one looks at studies done in the area. Sandra Willett, now the executive director of the National Consumers League, last year conducted an interesting bit of research on 69 postsecondary institutions in the greater Boston area. She wanted to find out just what kind of information might be available to students in search of financial aid. Though all the institutions she selected were eligible for up to five federal student-assistance programs and additional state programs, none estimated how much financial aid might be available, and only 23 even volunteered to state their basic charges. Determining the actual price of attending a Boston institution, Ms. Willett concluded, is "virtually an impossible task to accomplish with an initial informational request for potential students seeking financial aid." She guessed that the cost of obtaining the necessary information from each school would average $100 and require from three to six months to obtain.

The next and final example of the lack of data concerning the amount and use of student support funds I draw from last year's ETS survey, sponsored by the CGS, entitled *Assessing Dimensions of Quality in Doctoral Education: A Technical Report of a National Study in Three Fields.* Table 1.1 of that report is titled "Program Characteristics Judged Important to Quality" and among the four major headings is "Resources" which is preceded by the headings "Faculty" and "Students" and followed by a category called "Operations." The first item listed under the resource area reads "Financial support—internal and external (including education and *general, financial aid for students, research).*" *This is the first* and last citation to this item for a hundred pages or so; then, in a section entitled "Problems in Obtaining Accurate Resource Information," we read:

> "Probably the single biggest problem area had to do with finances, including such specific indicators as dollars available to students (for research and teaching assistantships, fellowships and other forms of aid)...
>
> This logistic fact of life has obvious implications about the kind of information—and the level of detail required for that information—that can reasonably be sought in future efforts of this kind. It also has implications for the amount of confidence that we can place in the data we were able to gather, and in the corresponding correlations and other statistics computed with these data.

This constitutes the last citation addressing the question of financial resources in doctoral programs except for a "comment" in Table 11.1—a table entitled "Summary of Characteristics of Various Possible Indicators of Program Quality." The comment about support resources reads as follows:

> Extremely difficult to obtain reliable information across programs, many analyses intended with these data were not possible because of concerns about the accuracy of the information.

These examples, I assure you, are only minimally representative of a very wide-ranging set of problems involving the gathering and analyses of information in the student support funds area. I could illustrate these problems with many more references to indicate that the field has been, at best, the subject of benign neglect. This is not to suggest that money, indeed great quantities of money, are not the focus of student support programs but rather that the amounts of money in student support grew so quickly, and the number of these programs became so various, that they were often lacking clear direction and necessary control; and, yet, that during the period of greatest growth those funds were not themselves so great in amount that they were critical for the continued development of the postsecondary enterprise.

Now this situation has changed and increasing interest in the uses of student support funds is beginning to be exhibited; the recent series of four two-page articles on the subject that appeared in *The Chronicle of Higher Education* is one illustration of this trend. And importantly, the changed state of affairs that is bringing the general question of student support funds into the limelight on a national basis has particular relevance to the use of those funds at a graduate education level.

What are some of the elements of the situation that confront us, the current state of affairs that, if not now, will, I believe, be making most of us involved with graduate education give considerable attention to the uses of graduate student support funds in the near future?

One critical element of the situation, we might term broadly, "graduate student enrollment." As you know, it is projected that the number of graduate students will decline dramatically during the decade ahead as a reflection of a reduction in the number of freshmen, which is expected to be down by 15 percent in 1985 and as much as 22 percent in 1990. While the genesis of this decline has not been expressed in the graduate enrollment figures of the past year, as was expected, it may be argued that this is due, in no small measure, to a redoubling of recruitment efforts by graduate colleges across the nation. Besides the level of graduate students enrolled, graduate colleges also face, especially if they expect to sustain their numbers of students, an increasingly diverse mix of students, a mix characterized by an increasing heterogeneity of student bodies of varying ethnic origin, age, and academic and professional characteristics.

A second major element in the graduate student support issue concerns "capital," that is, the working capital of the university. In this area the problematic situation is characterized by inflation, coupled with stringent institutional budgets, ever tighter purse strings on funds in support of graduate education from state and federal legislatures and agencies, all this together with steadily increasing tuition levels, and an increasing tendency on the part of corporate philanthropy and contracts to decline. These two major elements of the contemporary graduate education situation (enrollment and capital) are combined with a multitude of other factors, all of which have, and should be recognized as having, a relationship to the question of the uses of graduate student support funds. Among these factors are the admittedly limited job market in academic positions, the increase in the number of postdoctoral fellows, the limited non-academic job opportunities for recent Ph.D. recipients, the increasing trend toward student-initiated consumer suits against academic institutions and the increasing demands of graduate students for interdisciplinary degree programs, multiple advanced degrees, and coursework tailored to meet their particular interests and desires.

The multiplicity of problematic elements constituting the situation I have described has been contributed to by the manner in which graduate student support funds have been used and, I believe, the manner in which those funds are used in the future will have a greater impact than heretofore toward the resolution or aggravation of the situation.

At the heart of this matter is the question of how can the graduate colleges now, and in the years ahead, help sustain themselves and fulfill their missions through the effective use of graduate student support funds. In other words, how can these support monies be best employed for the benefit of the institutions that distribute them? There are many questions that must be answered and some directions and philosophies established before these funds can be so effectively utilized.

Obviously the distribution of such funds is playing an increasingly important role in graduate student recruitment as competition increases among graduate institutions, as each attempts to maintain its level of enrollment and to vie for an adequate share from the small pool of top quality students. This student support fund becomes even more critical in the context of seemingly ever-increasing tuition and fee rates.

But the availability and level of these funds in the current state of affairs, particularly in graduate education, is very questionable. How, for instance, can a graduate college maintain any significant level of graduate student support in disciplines or areas of study in which the governments—state and federal—perceive that there is already an oversupply of degree holders in the discipline or areas of study? How can support funds for teaching and research assistantships be sustained while, at the same time, the number of postdoctoral fellows is increased in an attempt to provide employment for the finest of degree recipients and to help sustain faculty vitality in an age when academic capital is to be exploited rather than replenished or extended? The impact of this last circumstance is that graduate students are displaced from support opportunities as TA's, RA's and fellows.

Now I will not pretend that I have any absolute answers to these or other questions that may be posed, but I will offer some suggestions as to possible solutions for some of them and make some brief predictions about the outcomes.

My first suggestion relates to the area of information—information about financial support for graduate students, the amount of funds available, the means by which students can take advantage of them, and the goals and philosophies for fund distribution. In this area I suggest that each institution, either now (as an early-bird action) or, perforce, in the future, should develop systems for gathering and distributing accurate student support information. Such information, I believe, will be required by collegiate units for purposes of analysis; to encourge effectively the fulfillment of the goals of the college through the uses of graduate student support funds; and to monitor the achievement of those goals on a continuing basis. This information will also be required for external funding agencies in response to their demands to monitor support programs for purposes of accountability. And finally, such information will be critical in the increasingly consumer-oriented market of potential students as a recruiting device for graduate colleges.

On this last point I believe that students will expect to receive a good deal more *specific* information than they do now about the amounts of support they are *assured* of receiving early on the pre-enrollment, post-application stages of their relationship with any graduate institution. Schools that can accurately and reliably offer this information to the potential student after an initial contact will have a significant advantage in the recruiting processes over those who cannot offer that information, or those who can offer it only in late stages of admissions and enrollment programs.

The collection of this information and its distribution in a useable form will be a major undertaking, as I know well from my own experience. In order for such information to be truly worthwhile it will have to take a form that adequately reflects institutional goals, is understandable to monitoring agencies, and is comparable with information offered by other similar institutions.

Clearly, if these information objectives are to be achieved, those who are in charge of developing the philosophies, policies, and goals for the graduate enterprise at an institution must have in mind *and* convey to central administrators a very clear concept of what those philosophies, policies, and goals are and how graduate student support funds should be employed to further the graduate school's objectives. This means, at the outset that those in charge of the graduate schools must be given some direct control over a significant quantity of graduate student support funds; that these funds be distributed to departments or to students directly by the school; and that the graduate school delineates the goals to be advanced and monitors progress in achieving those goals.

The principal arguments or rationales presented to central administration for receiving such purse-string control are the ones I have already mentioned. I will briefly enumerate them again: 1) As tuitions increase, the effective employment of financial aid becomes more critical; 2) as funds from external support agencies become more scarce and, in the light of declining employment opportunities, the school must be able to delineate and justify its costs to external monitoring agencies; and 3) with an expected decline in the number of persons who compose the pool of prospective students, the school must be capable of readily instituting measures to advance its goals and to insure sustained levels of enrollment.

At the University of Iowa my office has disbursed a sizeable amount of graduate student support funds for something more than a decade. These funds, which constitute what we term a "bloc allocation," are distributed by my office on an annual basis directly to graduate departments for their use in the form of tuition scholarships, non-service fellowships and research assistantships. (The other major supply of graduate student support monies is disbursed by the Vice President for Academic Affairs who provides funds through the collegiate structure to departments for teaching assistantships.) Until the last two years the monies under the Graduate College's control for graduate student support did not, quite frankly, figure too prominently in the total package of institutional program support. Monies in all areas of program support were relatively adequate and justification for the uses of student support funds was, in general, not a critical matter to agencies within or external to the institution. The effect of this situation upon the Graduate College's distribution of its bloc funds was that what monies we had available were distributed generally on a largely intuitive basis among graduate departments making requests for them. These graduate departments were allowed in turn to employ the funds at their sole discretion, within the single restraint of use as scholarships, fellowships, or research assistantships. No accounting for departmental employment of funds, either in terms of the achievement of departmental or Graduate College goals and objectives, was required.

All this has changed. Now the Graduate College is actively engaged in using graduate student support funds to further clearly defined collegiate goals. This change came about in response to a general and significant decline in program support funds which made, relatively speaking, the graduate student support funds the Graduate College had at its disposal among the few sizeable "pots" of flexible monies in the institution. The changes also came about in anticipation of the need to be able to justify clearly the expenditure of institutional funds in support of students when it might reasonably be perceived by external funding agencies that there were already too many graduate degree holders in some areas of study and that the enrollment of additional graduate students in these areas was questionable in itself. Moreover, the encouragement of continued enrollment through the provision of institutional support funds to such students could be considered not only financially irresponsible but perhaps morally reprehensible as well.

Our new distribution policies and processes are, quite frankly, exclusively based upon the philosophy of a merit system support program. It was and is our belief that by distributing our funds on merit alone, consistent with institutional objectives, we have the greatest chance of increasing the quality and scholarly productivity of our programs, of being able to justify the expenditure of institutional funds in support of graduate students, and, in the end, perhaps of increasing the amounts of funds which are generally available in support of graduate education at our university.

Functionally, our merit-based student support program has been carried out by instituting policies and procedures for fund distribution which give priority to requests for funds for graduate student support in the form of research assistantships. The rationale for doing so is that departments requesting research assistants are more likely than those which request fellowships and scholarships to be the most scholastically active and productive; in short, they are our programs of established high quality or they are our programs which show evidence of moving toward high quality. Moreover, since research assistants, as opposed to recipients of other forms of support, perform services for faculty members, the continued funding of the graduate student in this area can be justified to external monitoring agencies under the aegis of the argument that this use of student support funds contributes to faculty vitality. And finally, we believe that these funds, focused upon our best departments and directed specifically toward the encouragement of their continued and extended research efforts, is likely to increase the quality of those departments. This last brings with it the expectation that, in time, programs of greater renown will attract more high quality students (thereby reinforcing the maintenance of adequate levels of enrollment); that the finer the research programs we have, the more likely will they be to attract additional external support funds, and finally that such programs, with more frequency, will be able to attract students that bring with them their own external funding and/or, by their direct research activities in the program, significantly contribute to the program's grant seeking success.

This is not to say that our graduate student support program no longer funds fellowships and scholarships, although requests for these forms of support from departments have declined during the past year. This is due not only, we believe, to the Graduate College's advice to departments that priority in funding will be given to research assistantships, but also to the requirement that departments indicate their goals in the choice of spending money in any of the three areas and substantiate, on a yearly basis, the progress they are making in achieving those goals by the use of the funds distributed to them. Departments are required to give evidence, for example, that the RA position has contibuted to the research productivity of a particular professor or his or her department while, if funds are spent on fellowships or scholarships (since the emphasis is placed upon merit rather than quantity), the department must show evidence that the quality of their students, so recruited, has increased. This last is difficult to substantiate unless the program is already of fine quality or is actively involved in efforts to improve its quality and, in either case, such programs appear to be more likely to opt for funding research assistants (for the service they would provide the department) than for scholarships or fellowships meant simply to attract the minimum number of students necessary to maintain current enrollment levels and perhaps current academic quality.

If annual reports from requesting departments reveal that the department is not employing its student support funds to the University's advantage by increasing program quality either through an improvement or expansion of faculty research efforts or through an advance in the quality of graduate students admitted into the program, the department is subject to a reduction of its funds from the previous year's level by up to, but no more than, 10 percent annually. By so doing the Graduate College emphasizes its commitment to the continued development of quality programs and, by such use of graduate student support funds, highlights its intention to contribute significantly to that development. The commitment is strong enough that, for programs either incapable or unwilling to make effective use of student support funds for program quality enhancement, the College is willing to continue the reduction of funds for a weak department to the point, in effect, where there is no central collegiate support for its student recruiting program or financial aid activities. In effect the College is dedicated to a policy of helping strong and improving programs even at the cost of allowing the continued decline of weak and weakening ones.

I realize that the measures which we have taken in the Graduate College at Iowa, to get what we consider the fullest benefit from our student support funds, will be neither appropriate nor perhaps possible for some, if not many, other institutions to perform. My discussion of these measures was, however, not intended to prescribe what other institutions should do but rather to describe what one institution has done in an attempt to alleviate a number of problems it, along with other graduate colleges, will confront during the years immediately ahead. In the course of the discussion I have emphasized that: 1) the problems of maintaining adequate levels of enrollment and capital and of improving program quality are common to all graduate institutions; and 2) that the uses of student support funds can (given the peculiar current circumstances that surround graduate education) be a particularly effective tool to affect developments and momentum for the solution of enrollment, capital and quality problems.

PROBLEMS IN THE DELIVERY OF FIELD-BASED GRADUATE PROGRAMS

Moderator: Richard Rupp, *Appalachian State University*
David Hager, *Old Dominion State University*
James King, *Northern Illinois University*
Ronald Schultz, *Cleveland State University*
Lon Weber, *West Chester State College*

The panel presented ten questions regarding field-based programs

1. Why should graduate schools involve themselves in off campus programs? Old Dominion's mission statement creates an imperative which requires that it must at least seriously consider field-based graduate programs either as complete packages or in a mode where substantial course work may be completed at an off campus site. . . . At the present time the University offers graduate programs in public administration, history, engineering, and business management, which are either completely or substantially conducted at off-campus sites. (David Hager)
2. Are entrance and exit requirements identical for both on campus and field-based students?
   a. Yes. (James King, Richard Rupp)
   b. I believe that the essential ingredient in maintaining quality in such programs is to insist on the same standards for admission, faculty preparation, and student performance that are demanded on campus. There should be no difference on these quality factors even though a course or program may be offered 50 miles away from central campus. Faculty who participate in such programs should either be regular members of the instructional staff, who have been certified for graduate instruction, or very carefully selected adjunct faculty who have met the same criteria for graduate instruction as the regular staff. There should be no lowering of admission standards and the program itself should be offered in the same way it would be offered at the home campus. The only variance that should be considered here is some

tailoring of the courses or content to the specific need, interests, and demands of a select group, should it be that kind of situation. Simply put, don't alter your standards just because the program is offered off campus. (David Hager)

3. Do you distinguish between credit for field-based work and credit for work taken on campus?
   a. We require 10 hours in a 36 hour M.A. program to be residential. Ordinarily that work is taken in successive summers, e.g., 6 hours in a 4½ week semester one summer, and 4 hours the next summer, plus a comprehensive. The 10-hour residency requirement was mandated by central administration in order to insure some degree of traditional control. Whatever the merits of such constraints, students seem to profit from work taken on campus, particularly since it gives them access to computer and library facilities and to processing operations in the graduate school.

      In addition we allow residency credit for internships, individual, and independent study. (Richard Rupp)
   b. There should be absolutely no difference between on campus credit and credit acceptable for such purposes as residency or completion of degree requirements for courses taken off campus. It has long been the policy of Old Dominion University to treat courses taken off campus exactly the same as those courses taken on campus. There are other institutions which do not hold the same view and do not recognize such credit as equivalent to that taken on campus. It seems to me that there is nothing magic or sacred about credit given to courses taken on campus. As long as the same standards are enforced for off campus experiences, there should be no differentiation on the quality and the value of the credit given. (David Hager)
   c. Northern Illinois does maintain a residency requirement. (James King)
4. How do you staff and pay for field-based instruction?
   a. At Appalachian State we require that a majority of the courses taught off campus be taught by full-time faculty, either as part of their regular load, or (more often) as an overload. Part-time or adjunct faculty must be reviewed by the Graduate Council and meet minimal requirements for associate membership on the Graduate Faculty. Faculty can teach no more than two courses off campus during any one semester, and no more than one such course may be taught as an overload.

      Our faculty are paid according to the following scale:

IN LOAD		OVERLOAD	
S.H.	AMOUNT	S.H.	AMOUNT
1	$100	1	$ 350
2	$150	2	$ 700
3	$200	3	$1050
4	$250	4	$1400
5	$300	5	$1750

For cluster programs, an academic coordinator is paid $350 per semester. All faculty receive travel and per diem allowances for teaching off campus. (Richard Rupp)

b. It is sometimes difficult to generate enthusiasm among faculty members to drive 50 miles to offer a graduate course in, or to be a major component of the graduate program. Two things seem necessary in addition to departmental and faculty cooperation. First is the acceptance of the principle that faculty should be engaged in off campus and hour instructional activity. Second, there needs to be an accounting system devised that permits the faculty member's home department to at least break even a loan/borrow situation, when the faculty is committed to off campus study. The loan/borrow arrangement is particularly useful when a separate off campus coordinating activity such as a School of Continuing Studies has been established. This kind of accounting system is not without its problems. Departments often feel cheated if the number of students enrolled in a course exceeds the minimum for supporting the loaned portion of the faculty member's load. Many departments find it to their advantage to lend out faculty to the School of Continuing Studies to service off campus programs and thereby balance FTE faculty authorization with enrollment. In the case of a program offered completely or almost entirely by the faculty of one department, some of these problems are minimized. In programs which are multi-disciplinary efforts, such as the master of public administration or master of urban studies program at Old Dominion University, there is a considerable amount of coordination necessary by the department, the graduate program director, the School of Continuing Studies, and its field service staff. (David Hager)

c. All off campus, credit courses are administered through the Division of Continuing Education. The Division determines the number of students necessary for a break-even point in the teaching of the course, makes the arrangements for the location, any fees that must be paid for any facilities, etc. The admissions to the courses are handled through the Graduate College. The courses are taught mainly by our first line faculty and very seldom by the poorer or part-time faculty. We have various categories of admission into the Graduate College; one of them known as the Non-Degree admission status is for those persons who do not wish to seek a degree but wish to take certain courses in a given area. These may be special workshop courses or special advanced courses for which they would like to gather credit but are not interested in pursuing a degree. Other admissions are to degree programs and applicants must meet all the standard requirements for that particular program, including GRE scores and recommendations. (Ronald Schultz)

5. How do you coordinate the planning and administration of field-based programs?

a. For reasons of quality control and academic integrity, Northern Illinois prefers to administer such programs directly out of the Graduate School. (James King)

b. Old Dominion has established a School of Continuing Studies (see 4b. above). (David Hager)

c. Appalachian State has established a Division of Community and Regional Services within the College of Continuing Education, whose responsibility it is to foster, develop, and implement non-credit programs

(CEU), single courses (extension), and clusters (programs given to a specific group over a two year period, culminating in a master's or specialists's degree). To that end a *Manual for Field-Based Programs* has been developed, outlining the academic procedures, areas of responsibility, funding policy, and other matters. The *Manual* is available to graduate deans on request. Interested deans should write to Ronald Terry, Director, Division of Community and Regional Services, Appalachian State University, Boone NC, 28608. (Richard Rupp)

6. Doesn't the Graduate School surrender some control and autonomy by allowing site selection, scheduling, employment, etc., to be done by an entity which reports to an office other than the Graduate School?
   a. In our opinion, it does. (James King)
   b. Because of the coordination and publicity efforts required to successfully conduct a field-based program, it is desirable, if not essential, to establish some major sub-unit within the University structure to be attentive and service the off-campus activities. Old Dominion University has established a School of Continuing Studies, which has primary responsibility for conducting, stimulating, coordinating, and facilitating the outreach efforts of the University at undergraduate and graduate levels. There is considerable coordination between this school, its staff, the other academic schools, graduate studies, and departments. The School of Continuing Studies and its administration is also active as a bridge to the community, being a source of identifying what community demands and educational needs are, so that programmatic efforts can be mounted. (David Hager)
   c. Some disagreement on the subject has occurred among faculty at Appalachian. Our field-based programs are receipt-supported; they are not supported by appropriated funds. Charges of empire-building, excessive cost to the student, departmental enrichment at student expense, etc., have led us through a campus-wide dialog and a task force to adopt our *Manual for Field-Based Programs*.

      The role of the Graduate School is to oversee the programs offered, the degree requirements, the qualifications of both faculty and students engaged in the program, academic record-keeping, and procedural advisement. A field-based coordinator in the Graduate School is supported by student receipts. Her job is to track each student in each cluster, answer and initiate correspondence, visit cluster sites, work with the academic departments and Community Services, and generally be available to the academic coordinator and the students for assistance in the processing of students through the program.

      In our view, this commitment of time and energy makes graduate school responsibility for financial, staffing, and marketing arrangement impossible and probably undesirable. Our field-based coordinator is a vital liaison between the Graduate School and Community Services. The function of the two offices is different, but they must work closely for the effective delivery of off-campus graduate instruction.

      The Graduate School preserves ultimate responsibility for policy affecting field-based students; Community Services provides the delivery system. (Richard Rupp)

7. What are the problems concerning physical arrangements, library resources, computer facilities, interaction with the program faculty, and use of normal campus facilities for students enrolled in field-based programs?

a. Some of these problems are without good answers, or marginal ones at best. The problem of physical arrangements or physical space facilities is usually accommodated by or can be accommodated by rental or use of public buildings, such as high schools or civic centers. A location for the courses is often minimized if there is a specific requesting agency involved, since arrangements for classroom space can be made part of the bargain.

Library resources pose a more difficult kind of problem. There is a partial answer available in the establishment of books and materials at the instructional site. Often only a skeletal set of reference works can be provided. The student must use the major library facilities located on campus in order to do effective research in his or her particular discipline. Unless the total library can be transported to the off-campus instructional site, or unless some computer linkage can be established to search the library collection and display selected areas, there seems to be no alternative except for periodic visits and use of the campus library, or other research libraries within reasonable distance of the instructional site. (David Hager)

b. The problem at Northern Illinois is financing instructional materials, computer time, etc. It is difficult to know what percentage of support funding should be charged to students in the field and what percent to the departmental budget on campus. (James King)

c. At Appalachian State we have worked out a financial model in recognition of the problem Jim King raises at Northern Illinois. We require that such programs be self-supporting, since North Carolina supports neither FTEs nor overhead costs.

For cluster programs we estimate an attrition rate of 85 percent and figure the tuition on the number of enrollees. For 40 or more students, tuition is $27 per semester hour; for 30-39 students it is $36; for 20-29 students it is $54. A model cluster will generate $2,754 per 3 semester hour course. A 36-hour master's program will generate $33,048. The following fiscal model outlines expense anticipation for a one-semester hour course:

Instruction/Salary	$ 350.00
Instruction/Fringe	52.50
Academic Coordinator	58.33
Academic Coordinator/Fringe	8.74
Travel/Subsistence	66.66
Learning Resource Material	58.33
Support Personnel	66.67
Evaluation	16.66
Phone/Postage	8.34
Office Supplies	10.00
Administration/Community Services	161.67
Faculty Development	33.34
	$ 891.24

A full explanation is available in our *Manual*. (Richard Rupp)

8. How do you handle the problem of faculty advising for field-based students?

   a. Interaction with faculty can be handled in a number of different ways. The easiest arrangement we have found in our experience has been to establish office hours for faculty members at the instruction site, to provide general advising for graduate students. In addition, a great deal of advising, conversation, and counseling can be done over the telephone or by appointment with the faculty member on the campus. An effort must be made, however, to establish some system whereby the student can have easy access to faculty, particularly if and when a major research project is initiated and under way. (David Hager)

   b. At Appalachian State we distinguish between academic and procedural advising. Academic advising is the responsibility of the academic coordinator for each cluster. This person helps to plan programs of study, make substitutions, prepare readings for comprehensives, etc. In addition the individual professor sets aside a certain time during each 3 hour session for meeting with students. Some come early, some stay late, some utilize breaks during the period.

      Procedural advising is the role of the Graduate Schools' field-based coordinator (see 6c above). In essence that person functions as an assistant dean. About one third of her time is spent in the field, going from cluster to cluster. In addition she relays questions and problems from students to the departments. She works closely with the academic coordinator, the class instructor, and the chairman. (Richard Rupp)

9. How large an area do you serve with field-based courses?

   a. Northern Illinois serves the northeastern corner of Illinois, an area roughly bound by the Wisconsin state line, the Rock River, Interstate 80, and Chicago. Maximum distance from campus, one way, is approximately 80 miles. (James King)

   b. Old Dominion's area of operation extends along eastern Virginia from North Carolina to Maryland, on an approximately 50-60 mile radius from Norfolk. (David Hager)

   c. Appalachian serves northwestern North Carolina, an area bound roughly by Winston-Salem, Salisbury, Gastonia, and Morgantown. The university resists the tendency to pre-empt turf from the other 15 institutions in the UNC system. Generally speaking no courses are offered more than 100 miles from Boone. Chancellors cooperate on the establishment of programs on the fringes of the delivery area to avoid duplication of effort. (Richard Rupp)

   d. The geographic area served by Cleveland State University is Cuyahoga County and very limited portions of Lorain, Lake, Geauga and Medina Counties. (Ronald Schultz)

10. In your opinion, can universities mount field-based graduate programs requiring the same standards of quality as those found on campus?

    One of the questions that is important to our operation is that of the type of faculty used to staff these courses. Since we have such a limited geographic area, it is no problem for our faculty to travel to these points. However, if we were located in a situation where we had to have total programs off campus, 5,200 miles away, it might be a different story. It then becomes a matter of hiring faculty who are going to be servicing only the remote locations or sending your regular, first-line, on campus faculty to these locations on a regular basis. Much of the success of programs is dependent upon the type of faculty that are involved.

Another question should be related to the academic content of the program or the course. At Cleveland State University all courses, except for workshops that are taught off campus, have exactly the same content as those taught on campus. Any course that anyone takes at a remote location can be transferred back to the campus without any problem. Workshops are developed for special topics as the need arises and they may range from multi-cultural to mental disabilities, learning disorders, etc. However, the number of workshop credits that can be counted toward a degree (or in any other field) is limited to eight. A student may take as many workshops as desired, but they cannot be transferred into a credit area. A question relative to the academic content, I feel, is important since it is no use for us to offer programs away from the main campus if they are not as good or better quality than those on campus. There are enough universities from out of the State of Ohio offering courses and programs within the State of Ohio that are below par that we cannot afford ourselves to be offering such types of programs or courses.

Another concern that we should question is that of consumerism. We must make sure that our courses and/or programs being offered are quality programs leading to a specific goal. We have had a rash of outside-of-the-State universities coming in offering courses that we have brought before the Ohio Board of Regents on the basis of consumer protection. These courses will not every carry credit at their home institution towards graduate degrees, but yet they continue to advertise that they can be taken for graduate credit. Students then become very upset when they are not accepted for credit at a local institution because they were advertised by the out-of-State institution as being acceptable for graduate credit. So it is important in our course and program offerings that we offer a good, solid degree program and keep consumerism out of it.

Finally, we must ask ourselves what is the uniqueness of us offering programs off campus. As I see it, the uniqueness is in the value of the credit that is offered. If it is only for learning experiences, this could be done by consulting groups or local educational institutions of various kinds which have sprung up across the country and that could come in and offer the particular type of course, in many cases much cheaper than we can. The real nub of the whole thing is that we as universities are unique in that for a given amount of work on behalf of the student, in a particular area, we award something that is termed credit. These credits serve eventually to the awarding of a degree which is something that the local consulting or even outside of state consulting type or educational type institutions cannot offer. We should therefore be willing to protect this credit and make sure that it is earned honestly and does have value.

I think we should all remember that there must be integrity in all off campus courses and program. After all, the bottom line of our degrees must be the fact that the students have gained a certain amount of ability through their participation in the program. These levels must be constantly checked and everyone must work towards keeping them at a level that provides our students with superior abilities when the program is finished. (Ronald Schultz)

The panelists felt that further attention might well be given to these matters at subsequent conventions, since field-based instruction is a matter of increasing concern to American graduate schools.

Third Plenary Session

Thursday, December 1, 1977, 9:00 a.m.-10:00 a.m.

APPLICATIONS AND LIMITATIONS OF GRADCOST PROCEDURES

Chairwoman: Margaret N. Perry, *University of Tennessee-Knoxville*
Joseph L. McCarthy, *University of Washington*
Jesse B. Morgan, *Tulane University*

Joseph L. McCarthy

Ladies and Gentlemen:

It is a pleasure to be with you today, and I am especially happy to be joined by my co-worker and colleague, Dr. William Garrison, Jr., of the University of Washington, who spent full time on the Gradcost III study for the last two or three years and has made major contributions to its advancement and completion.

We are very fortunate to have with us also Mr. Jesse Morgan, Vice President for Business of Tulane University, and retiring President of the National Association of College and University Business Officers, who worked closely for a long time with our late colleague, Dr. David R. Deener, on the Gradcost III project.

The Gradcost III study was undertaken in 1974 with major financial assistance from the National Institutes of Health under the policy guidance of the CGS Gradcost III Committee, and with Joseph L. McCarthy, University of Washington, and David R. Deener, Tulane University, serving as Director and Co-director, respectively.

The work proceeded during 1975 and 1976. During the latter year, we suffered the loss of two of our colleagues, Dr. Steven H. Hatchett of the National Institutes of Health who almost single-handedly promoted support for the Gradcost project, and Dr. David R. Deener who contributed much to graduate education and to this project. The activity has been carried out mainly in Seattle at the University of Washington.

This investigation has been carried out to study alternative methods for estimating the costs of programs leading to the degrees of Master and Doctor of Philosophy, to identify one or more relatively simple procedures which could be carried out using definitions prevailing and data available in most graduate schools in the United States, and to apply the developed procedures to data collected from a number of universities and colleges in the United States in order to generate estimates of the costs of graduate programs in the fields of Biochemistry, Cell Biology, Chemistry, Economics, English, Mathematics and Psychology.

Definitions

As conceptual base for the study, a university or college has been visualized as carrying out three main programs; instruction, research and public service. Instructional programs include those leading to the degree of Bachelor, Master, and Doctor of Philosophy and these are of major interest. Research programs are seen as closely related to and usually extensively overlapping with instructional programs, and especially those leading to Doctor's degrees. Public service programs are often separately funded, and these are the minor interest in the present study.

Institutional funds are considered in two categories, "unrestricted" and "restricted."

Total programs costs are defined as the monies expended by or through a college or university to provide for operation of a particular graduate degree program. Unit costs are obtained by dividing total program costs by numbers of master's or doctoral students enrolled in a particular degree program or by the number of master's or doctorate degrees awarded in relation to the program, or by the total number of graduate students associated with the subject department.

Procedure-Departmental Costs

To estimate graduate degree program costs, data were collected mainly from institutional annual reports, and by use of questionnaires. Total program costs were considered to consist of three elements; departmental costs, institutional support costs, and graduate student appointment costs. Of these, the first is the most important.

Several alternative procedures for allocating funds from departmental budgets to departmental Doctor's, Master's, and Bachelor's programs were studied. According to one method (CLASSCUT), allocations were made to programs based upon the main student clientele for the classes offered by departmental faculty. In a second method (CREDCUT), student credit hours provided the basis. These, together with a third method (COMPCUT) described below, were found to give widely differing results.

It was concluded that the COMPCUT procedure is more useful for estimating departmental costs. COMPCUT is based mainly on data derived from Faculty Activity Analyses (FAA), Crossover Analyses (XOA), from departmental statistics, and from Student Credit Hours (SCH) information relating to five levels of instruction: lower division (LD) and upper division (UD) undergraduate classes, graduate classes (GC), independent study and Master's thesis (ISMT), and Doctors dissertation (DISS). Generally, departmental budget funds were allocated to a particular instructional level based upon the proportion of faculty time reported by FAA be devoted to that level. These by-level total costs were divided by the number of SCH generated at each level to secure by-level costs per SCH. These were multiplied by the appropriate numbers of SCH taken by all the students in a subject program, and then summed by level to obtain the total program costs. Dividing this by the number of enrolled students or awarded degrees gave the estimated unit departmental costs.

In general, this COMPCUT procedure was found to be applicable with moderate satisfaction to data assembled from the participating institutions in the several fields studied. Its main weaknesses are the limited reliability of the FAA at graduate levels of instruction, and the difficulty in securing consistent reporting of SCH for the individual student-professor contacts such as those which occur in independent study and research, master's thesis, and doctoral dissertation activities.

Procedures-Institutional Support and Student Appointment Costs

Costs of institutional support of departmental programs were approximated by multiplying or dividing total annual institutional expenditures for libraries, student services, plant operation and maintenance and general institutional and administration activities by certain factors called "proxies" and, in some cases, applying "weighting factors." For example, institutional expenditures for student services were divided by the total number of students enrolled in the institution to obtain the estimated costs of student services per student enrolled in a departmental doctoral or master's program. In general, these procedures were found to be satisfactorily workable to provide useful approximations. However, the weighting factors used might desireably be chosen differently in certain cases for individual fields and/or institutions.

Data were collected for each department concerning student appointment expenditures for fellowships, traineeships, teaching assistantships, and research assistantships. Tuition waivers were not included as cost elements. The other named expenditures were summed and then recorded on a per student basis so as to reflect the level of financial support available to assist in the recruitment and maintenance of graduate students. It was concluded that only those expenditures made in favor of fellowships, traineeships, and also research assistantships supported by unrestricted funds, should be included as graduate degree program costs.

Estimated Research Program Costs

In view of the major importance to graduate programs, and especially to doctoral programs, of research activity by faculty members and graduate students, procedures were developed to permit estimation of these expenditures. It was concluded that two categories should be taken into consideration, those expenditures made from unrestricted departmental funds, and those made from restricted funds in favor of sponsored research. Approximations were made of the magnitude of both types of expenditures, and the sum of the two was then calculated and taken to be an estimate of the monies used to support the Research Program of the department. It was recognized that this sum is much less than the replication costs of the total departmental research program because it does not recognize for the research activities often conducted without stipends by students carrying out research for their master's thesis and doctoral dissertation.

The estimated total Research Program expenditures were divided by the number of faculty members and of graduate students to obtain rough approximations of the expenditures on a unit basis so that comparisons could be made among fields and institutions with respect to the magnitude of departmental research programs.

Estimated total research expenditures per faculty member per year varied widely in individual departments studied, but on the average were largest in Biochemistry, substantial in Chemistry and Economics, considerably less in Mathematics and Psychology and smallest in English. Department research expenditures were similar in the several fields, but sponsored research monies ranged from high values for Biochemistry and Chemistry, through medium values for Economics, Mathematics and Psychology, down to almost zero for English. Research program expenditures per graduate student showed a similar rank order.

It was concluded that sponsored research costs should not be included as elements of the cost of graduate programs.

Estimated Graduate Degree Program Costs

Estimated total graduate degree program expenditures per enrolled graduate student per year also varied widely among the individual departments studies, but on the average were found to be highest for Biochemistry, considerably lower for Chemistry, and then decreasing for Mathematics, Psychology and Economics, and lowest for English.

Estimated annual costs per student enrolled in master's and in doctoral programs followed a similar rank order with respect to fields although the doctoral costs are generally substantially higher than the master's costs. Costs per awarded doctorate and master's degrees likewise followed similar trends with respect to fields, although dispersion of the program costs among individual departments in a particular field was quite high for the awarded master's degrees.

Correlations are being developed to relate departmental costs with the characteristics of participating departments and institutions.

Status and Plans for the Study

Cost-estimating procedures and computer programs for carrying out calculations have been developed and applied to all available data. Writing and review of the report is nearly finished, and it is anticipated that the Gradcost III project will be completed by January 1, 1978, and the final report published shortly thereafter.

It is hoped that this study: (a) will help interested persons to understand the nature and magnitude of the costs of graduate education; (b) will provide generally applicable procedures by which approximately valid estimates of the costs of graduate degree programs may be made expeditiously and inexpensively; and (c) will give some examples of ranges of estimated graduate degree program costs in several fields.

Comments and suggestions concerning this investigation and possible application of the findings will be welcomed and may be addressed to the writer or to Dr. Garrison at Benson Hall (BF-10), University of Washington, Seattle, WA 98195.

Thank you.

Jesse B. Morgan

I have followed the Gradcost study with considerable interest and I commend the report to your attention. In my opinion, the task of quantifying in dollars and cents the cost of graduate education by disciplines with a high degree of preciseness is a difficult, if not impossible, undertaking. However, the techniques suggested in this study do provide a framework for developing an approximation of the various cost elements and their relationships to each other. It will not provide a set of absolute numbers, nor will it guarantee comparability with other institutions. The very nature of the effort to be costed and the vast differences between institutions, probably defies accurate costing and comparison. Education, research, or scholarly effort and public service have a joint relationship which cannot and probably should not be dissected. The academic enterprise cannot be measured with the same costing techniques applicable to an industrial enterprise. When the Federal government or any other entity chooses to support research, it is encumbent on the institution accepting the funding to complete the assignment as economically and as expeditiously as possible. If in the process the educational effort is enhanced or the total body of knowledge is increased, this does not mean that the research itself is diminished or that the sponsored support should be discounted or shared. It is unfortunate that the buzz word "accountability" has caused auditors and accountants to emphasize cost input such as percentage of time and effort related to a 40-hour week because of their admitted inability to measure the long-range values of the output or product delivered in precise economic terms.

With regard to this particular cost study, there can be honest disagreement with many of the approaches or techniques which the study suggest. For example, the rationale for some of the proxies employed, the handling of the value of tuition waivers, the accuracy of the faculty activity analysis as it relates to cost distribution and the application of sponsored research cost to the educational effort. Disagreement does not belittle the effort. It may, in fact, result in the building of better mousetraps. As long as accountability is with us, we need to argue for rationale approaches.

Finally, as my colleague at Tulane, the late David Deener, would probably have said, "cheers."

Fourth Plenary Session

Thursday, December 1, 1977, 10:30 a.m.-12:00 noon

THE CHANGING ROLE AND SCOPE OF ACCREDITATION IN GRADUATE EDUCATION

Chairman: Sanford S. Elberg, University of California, Berkeley
Moderator: Robert F. Kruh, *Kansas State University*
Kay J. Andersen, *Western Association of Schools and Colleges*
Hardy M. Edwards, Jr., *University of Georgia*

Sanford S. Elberg

The session on the Changing Role and Scope of Accreditation is ready to begin. Dean Kruh and Hardy Edwards and Dr. Kay Andersen comprise the panel.

Dean Kruh is the Graduate Dean at Kansas State University. He did his doctoral work in chemistry on the X-ray examination and structure of liquids and solids and therefore has assured us that there will be a very penetrating examination of the subject. He had his academic and administrative apprenticeship at the University of Arkansas where he was for about fifteen years before coming to Kansas State as Graduate Dean.

Dr. Kay Andersen has for many years been the guiding light of the Western Association of Schools and Colleges Commission on Accreditation where he serves as executive director and executive secretary of the association. He taught me the fundamentals of accreditation such as it is and has always had a very open mind on the results of our accrediting tasks. Dr. Andersen did his graduate work at the University of Southern California in higher education and his post-doctoral work at the University of Michigan. He has gone all the way up the ranks as teacher and administrator in the public schools, as a dean and as a professor at the state college and university levels. He is also one of the authors of a new book published this year by Jossey Bass on *The Academic Department*.

Our third panelist, Dr. Hardy Edwards, has spenty twenty-one years at the University of Georgia and the last six as Dean of the Graduate School. He is a professor of animal nutrition in the College of Agriculture, has been a career awardee at the NIH, a Guggenheim fellow and has studied at Cambridge. I take pleasure in turning the panel over to Dean Kruh.

Robert F. Kruh

The subject of accreditation is closely connected with educational quality. Because the Council of Graduate Schools is very much concerned with quality it seemed in order to devote a session to considering how accreditation affects graduate education.

The current preoccupation with educational standards is exemplified by activities on many fronts. For instance, the Council has had a hand in initiating the study in Dimensions of Quality, which has been discussed in length at this meeting. And it has issued recent position papers on standards for graduate education. Statements on standards have been issued by some of the state organizations of graduate deans as well; the CIC schools have recently issued a paper on the subject. In addition, the regional associations of graduate deans have been dealing with questions of standards and accreditation, with the Western Association of Graduate Schools having assigned a committee to study the relationship between the accrediting agencies and the universities. The Conference of Southern Graduate Schools has established a close working relationship with the Southern Association and CGS and the Council on Postsecondary Accreditation have had a task force working directly with the question of graduate accreditation.

The subject is becoming more pressing, with many instances of marginal activities on the part of a number of schools. It is not unreasonable to say that accreditation is at a crossroads. For abuses on substandard operations have even stimulated legislative action, and several states have enacted legislation setting forth the conditions under which higher education is to be offered.

Dealing with abuse, whether by accreditation or legislation, is difficult, for no one seems to want to impose orthodoxy in graduate education. Most people agree that there must be latitude for a variety of educational approaches. Dr. Hackerman argued for this yesterday. But that very flexibility opens the door to abuse.

Students nowadays are seeking credentials for economic advancement. For their part some schools are seeking students because they bring increased revenue—whether in the form of fee income for private schools or a combination of fees and appropriations for public ones. Under these circumstances one wonders if it is in the immediate interest of either students or schools to put quality first.

Given the problem of defining quality it is difficult to level successful criticism against some of the questionable programs. Critics are quickly charged with self-serving motives and with wanting to maintain the status quo. The established schools are left wringing their hands.

The question is how to allow for diversity while fostering the intellectual rigor characteristic of graduate work. Accreditation provides one avenue for attention to this question. And the graduate community is more and more interested in how it can influence the accreditation process. After all, the sanction for the authority now exercised by the accrediting associations is provided by the constituent members, each of which is represented by a graduate dean here at this meeting. As a result our influence can be felt if we make known our interests to those accrediting agencies.

The presentations of my two colleagues, Dr. Andersen and Dr. Edwards, together with the ensuing discussion can help us decide what part the graduate schools, the regional graduate associations, and the CGS might play in keeping effective accreditation in the service of graduate education.

DEVELOPMENTS AND EXPECTATIONS REGARDING THE ACCREDITATION OF GRADUATE EDUCATION

Kay J. Andersen

In his confirming letter to me, Bob Kruh stated clearly the major issue: "How standards and rigor are to be maintained while allowing for diversity."

This is not a new question. I am sure that this issue has appeared many times, as the boundaries of higher education, and consequently, of accreditation have expanded to include new, or what some would classify as substandard, institutions and programs. What is new is the degree of rapidity of boundary enlargement and the effect this has had on society. If some of the issues identified at this conference go unresolved for too long, the character of both graduate education and the accrediting process may be adversely affected. These are substantial groundswells rather than insignificant ripples.

During the few minutes I am here with you, I will make a few observations about the following topics:

1. Gradually increasing awareness of need for flexibility and diversity.
2. Response to the need for change.
3. Dangers seen by the establishment—imagined and real.
4. Accreditation caught in the middle.
5. Accreditation responsibilities, opportunities, and limitations.

Increasing Awareness of Need for Diversity and Flexibility

In the November 1976 issue of *The American Psychologist*, Nevitt Sanford made a comparison of graduate schools of the 1930's with those of today. He observed that there have been losses with respect to some values, for example, purity of motives for intellectual work, and gains for other values, such as democracy in admissions.

The Association of Graduate Schools, in its 1976 report to the American Association of Universities, called for eclectic approaches to cope with the diverse needs of new students, but also urged that areas of excellence in existing doctoral programs should not be sacrificed.

The final report, *Outlook and Opportunities for Graduate Education*, of the National Board on Graduate Education, recommends increased experimentation with non-traditional programs serving new clienteles and encouraging greater diversity among graduate schools.

In the 1973 Educational Testing Service publication, *Scholarship for Society*, one reads: "The diversity of institutions is potentially the greatest source of strength that the system possesses. We also believe that at this moment diversity is a cause of chaos and cannot cease to be until clear definitions of mission have been articulated and accepted by all parties."

Studies such as the one done by the Western Association of Graduate Schools in 1976 dispelled the notion that all innovation occurs outside established institutions. This study reveals that there is a widespread awareness and acceptance of the changing context of graduate education within established institutions. More change is occurring than expected, and innovations are not concentrated in a relatively small set of curricular areas.

Response to the Need for Change

There has been an over-response from the non-traditional community and from established institutions moving into or expanding graduate offerings. Justification for much of this comes from the aforementioned urgings for change and because of other conditions of which we are very much aware. While non-traditional education is leavening the lump, it is also used as a means of increasing institutional revenues and as license to recognize almost anything as graduate credit for any kind of degree or educational objective, or to market programs in other states, regions, or countries. All of these are serious temptations in a time of declining enrollments.

As part of the non-traditional movement, there is also an increase in free-standing graduate and professional schools. A stated reason is lack of flexibility within the traditional university, flexibility to adjust programs to new clientele in distant locations. In California, the Senior Commission has accredited or conferred Candidacy on 18 free-standing graduate or professional schools, and another 11 have presented applications or expressed serious interest. These 29 institutions include schools of theology, law, psychology, drama, education, etc. Some, such as theology and law, also have program accreditation.

Already, committees have been formed in several other states to plan nonuniversity connected programs such as those recently accredited in California. Some of these will establish themselves firmly among their colleagues and in the accrediting community, some may be invited to join established institutions, and some may not succeed at all.

The Reaction of the Establishment

Some graduate councils have reacted to these developments with resolutions of opposition, pressure on regional accrediting agencies for higher standards, and with some self-policing.

A short while ago the Conference of Southern Graduate Schools issued a strong statement to regional commissions concerning the quality of off-campus graduate programs and urged these commissions to examine each off-campus program offered at a branch, center, or cluster.

In July, 1975, the Michigan Council of Graduate Deans issued similar concerns and standards, warning that, "unbridled entrepreneurship and assumed license are more likely to produce havoc than enlightened creation."

In 1976 the Council of Graduate Schools, in its policy statement, *The Master's Degree*, detailed the structure of a master's degree in specific terms.

At their last meeting the Western Association of Graduate Schools suggested that perhaps regional accrediting commissions should limit accreditation to the undergraduate level because, it is claimed, regionals are unprepared to deal with graduate programs and with free-standing graduate schools. In my estimation, this is not a sound recommendation, because the concept and process of institutional accreditation would be weakened.

Roger Heyns, former president of ACE, and Charles P. Saunders, Jr., Director of Government Relations for ACE, spoke recently about the need for self-regulation by institutions and accrediting agencies created by them. Saunders said:

> It is the failure of institutions to articulate standards that has led the government to determine them for us. The most critical area demanding attention is the accrediting process. Elite

> institutions should support the accrediting process with money, evaluators, and time necessary to develop broad standards of quality, not rigid standards, but rather a range of standards and measurements of quality for the whole of higher education.

Accreditation in the Middle

As accrediting commissions and professional societies such as the Council of Graduate Schools have translated their concerns into more specific guidelines and standards for the development and evaluation of graduate education, there have been mixed responses from the non-traditional sector and from some of its supporters. They have cried, "unfair, more is required of us than of traditional institutions." They challenge the assumption that a graduate school must have expensive library facilities, full-time faculty, or residential requirements. Furthermore, it is claimed, good graduate education need not cost more, and in fact might be revenue producing. Hopefully, accrediting agencies and graduate councils will have the interest and resources to dispassionately examine these claims.

Some of these institutions have benefited from the accrediting community's flexible position and desire to foster sound innovation; others see little hope of accreditation by existing commissions. A few years ago several of these institutions developed their own accrediting association, now called the National Association of Private Nontraditional Schools and Colleges. It was incorporated in Colorado, and has unsucessfully sought recognition from the U.S. Commissioner of Education and from COPA. It has aproximately nine or ten members, most of them in the candidacy stage, mostly graduate schools, and most from California. I do not know what the future of this and similar accrediting bodies will be. What would be the impact of competing accrediting agencies, if they were legitimated by recognition from COPA or the government? Existing accrediting agencies might be relieved to abdicate responsibility for such institutions, but would it not confuse the public, for whom the term "accreditation" means the Good Housekeeping seal of approval?

There has also been a response, at least in California, from some unhappy egalitarian legislators who feel that the accrediting process has damaged or unnecessarily delayed some fragile innovative endeavors. The result has been a spate of bills designed to control or replace entirely the voluntary accrediting process. So far these have been successfully opposed through the tremendous support of member institutions and individuals and of associations outside the regions.

Responsibilities, Opportunties, and Limitations

Once criticized as elitist and as obstructing change, have regional commissions now become too responsive? I am told that our present qualitative, elastic accrediting process received its impetus around 1930, when the North Central Accrediting Association found it uncomfortable, if not impossible to deal with Antioch College innovations. In the name of diversity and pluralism, accrediting commissions moved from the more quantitative approach to a process which made accrediting decisions largely on the basis of an institution's ability to satisfy its own purposes. There are now strong and sometimes strident voices which claim that this is wrong, that there must be clearly stated standards and a clear reference point if

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institutions are to know what is to be expected of them and if accrediting teams and commissions are to discharge their responsibilities effectively. I support that position, but with ample opportunity for non-traditional institutions to challenge those standards which they feel are dysfunctional.

With regard to one of the most thorny issues all of us are dealing with, that of off-campus and contract undergraduate and graduate programs, regional secretaries, in February 1977, drafted a statement to submit to their respective commissions on accreditation and off-campus educational activities. There is general agreement on the following points. One calls for advance notification to the accrediting commission of proposed off-campus educational activities. This might result in on-site evaluations and special commission action before an institution proceeds to implementation. All of the regions have agreed that off-campus educational programs and courses for academic credit are integral parts of the institution and should not be viewed as in any way peripheral. Therefore, they must be of quality equivalent to that of other programs in the institution and be under the complete control of the institution. Because of the tremendous inter-state and inter-regional educational activity of some institutions, it may be necessary for us to formalize the understandings among the regions.

In September, 1975, a group of us identified some serious problems connected with the non-traditional movement, and high on the list was a concern for the quality of graduate education. We questioned the ability of many institutions barely adequate to offer decent undergraduate work to move into graduate fields.

Funded by the Kellogg Foundation and sponsored by COPA and regional commissions, a project is now under way to develop evaluative criteria for the accreditation of non-traditional education. The project director, Grover Andrews, Associate Executive Secretary of the Southern Association's Commission on Colleges, is working with a small staff, including Patsy Thrash of North Central, who is here today, John Harris of Tennessee, Paul Dressel of Michigan State, and myself, on a study which we believe will provide much needed direction. Approximately 80 institutions in the United States classified as non-traditional are participating in the study. An important part of this project, under Dr. Dressel's direction, is an analysis of non-traditional graduate education.

In July, 1978, this study will be consummated, and may well result in national guidelines and standards for the evaluation and accreditation of non-traditional education.

As you know, there is in the final stages of completion a joint COPA-CGS statement which represents a major revision of the 1973 joint policy. In my estimation, the draft which I have seen is a distinct improvement over the earlier policy in that it recognizes newer forms of graduate education and the problems of quality in off-campus graduate work. It states accurately, "Although accreditation is generally considered to be the most effective vehicle for the recognition of quality, it cannot and should not be considered an unqualified seal of approval which guarantees every aspect of an institution or program for a specified number of years."

Failure to recognize this fact has led some to place full responsibility for today's problems at the feet of institutional accrediting agencies. Responsibility must also be shared by consumers, professional societies, specialized accreditation, and the institutions themselves.

Among the purposes of accreditation included in the proposed COPA-CGS statement is the assurance that an institution or program has clearly defined an appropriate obejctives, has the resources for reasonable assurance of the attainment of stated objectives, and is making a continuous effort to produce evidence of the attainment of *its* objectives. I believe that statement should be strengthened by reference to specific standards. It is no longer enough that an institution or program merely satisfy its own purposes.

The statement goes on to say that except for the protection of the health, safety, and well-being of the public interest, specialized accreditation should be avoided. I agree; but, in a recently completed accreditation impact study in our region, heads of faculty senates called for more rather than fewer specialized accreditations.

Institutional and specialized accrediting agencies should continue to explore more effective means for interaction and cooperation. I am serving on the COPA-sponsored task force on interagency cooperation, and within the near future we will be presenting to the COPA Board some principles that we hope will reduce some of the expensive and unnecessary accreditation duplication in the U.S.

The COPA-CGS statement also calls for advance commission approval of new graduate programs at a level for which the institution has previous authorization. I agree that programs at a higher level or those introduced at distant locations should require such approval, but should a large, established university need commission approval to introduce every new graduate program? That concludes my comments on the joint statement.

The accrediting community would also like to look to educational outcomes as a more effective means of evaluating traditional or non-traditional graduate education. The applied and professional nature of certain graduate programs does seem to lend itself to output measurement. However, the recently completed COPA study of educational outcomes confirmed the suspicion of many that the state of the art is still in its infancy. Some of you know that the Southern Association's Commission on Colleges has special procedures for non-traditional programs and institutions, procedures which call for the development of instruments for the assessment of the attainments of students which would be acceptable if independently examined by experts in the field. I predict that we will see more such pressure for attainment data, but for a long time we will still rely heavily on inputs, structure, and process.

I have already suggested that institutional accreditation, at least with its present structure and funding, cannot accomplish all that many expect of it. As a private, largely voluntary process, there will always be some slippage and sluggishness. It is not a day-to-day regulatory agency, should not attempt to protect every consumer, should not accredit by program or level, and must continue to operate with somewhat flexible standards. The foundation of regional accreditation is in a carefully executed self-study, but even here we should be more modest in our expectations that it will necessarily lead to improvement.

Regional accreditation can become a much more powerful force if the institutions which created it wish and are willing to pay more than the present minimum fees. If regional fees were doubled, accreditation would still be a bargain when one considers the total impact of regional accreditation. Additional revenue would permit the selection and training of more capable evaluators at the graduate level, make it possible to send teams wherever programs are located, and would provide the added staff time to carefully develop and implement policies and procedures.

If accreditation fails to do the job at the graduate level, each one here must assume some responsibility. Our institutions and programs must develop more explicit standards and ethics. I urge you to become active in accrediting affairs within your own institution, region, and professional society, and not just when your institution is up for a visit or when some marginal programs move in next door. When a questionable program does appear, why not send a delegation from the regional graduate council to inquire about the program and make suggestions for improvement? The institution might respond positively, and visitors might learn something. When a school district is dissatisfied with the quality of graduate programs offered to its teachers, it can, and often does, contact the appropriate accrediting agency. Before doing so, it should make a direct assessment of those programs to be certain that the complaint has some substance.

Conclusion

Although the accrediting process may not move fast enough for some, I am reasonably confident that regional accreditation, the Council of Graduate Schools, their regional affiliates, government agencies, other professsional societies, COPA, those consumers who want more than paper credentials, and any others committed to the preservation and elevation of quality in graduate education will lend support to the development of standards, policies, procedures, and resources necessary to address today's problems. In a voluntary system there will always be those who can find loopholes in the standards, yet, accreditation should remain qualitative and judgmental, rather than quantitative. We desperately need both high quality graduate programs and the benefit of serious innovation. At the same time that we are developing more precise standards, we must, above all, demand institutional integrity, which, in the final analysis, makes the real difference. Thank you for inviting me to this meeting.

Hardy M. Edwards, Jr.

What has been happening in graduate education during the past decades that stimulates us to discuss a change in role and scope for accreditation? Clearly, the changes have been profound. They have also been so gradual as to make it difficult to identify them even though they are now a significant part of gradual education. Let us start with some general observations about these changes and then proceed to a discussion of some of their effects.

Graduate education has experienced tremendous growth in the past two decades. This growth has been evident in the number of students, number of faculty, and diversity of programs in an institution. This extremely rapid growth, however, in my opinion, has brought with it a decrease in the quality of students, faculty, and programs. Student quality has decreased as a larger number of institutions granting graduate degrees compete for students. The lower quality student has become a lower quality faculty member and is presently fostering lower standards in graduate education. The result is that on nearly every campus today one finds students receiving sub-standard training in traditional programs and questionable training in many new program areas.

Many new programs developed to meet a rising demand for graduate education are offered in areas were there is no bachelor's degree knowledge base to build upon. It is questionable, in many instances, whether they should be graduate degree programs at all. This lack of requirement for knowledge in the area from a bachelor's degree program makes it possible for personnel from these areas to argue for admission of students with poor undergraduate records since there is no required knowledge base. Thus, nearly every student who receives a bachelor's degree can find some program to enter and hopefully receive a graduate degree.

Outside the walls of academia, more and more pressure is applied to individuals to secure a graduate degree to fulfill the requirements for licensing or meeting specific job descriptions for initial positions or advancement. In some cases a whole bureaucracy has developed around the requirement for specified credentials for employment. Once employment is begun, the employee becomes subject to pressure to enter a continuing education and/or a graduate training program. The process then goes on *ad infinitum*.

There is another side to the need for credentials. A greater demand for credentials has resulted from a failure of practically all institutions in our society (public education, business, industry, and government) to develop effective methods of measuring people's ability to do a particular job; the result being that in many cases they rely on degrees earned to license or give credentials to people in certain positions. Thus the pressure that would previously have been exerted by individuals within their organizations to secure promotion has been redirected toward higher education, particularly graduate education.

As a result of this outside pressure, educational institutions are finding themselves more and more in the credential-granting-business—an activity they have neither the experience nor the organization to carry out. Furthermore, oftentimes the student is more interested in the credentials than the education. The result of this attitude is a further lowering of standards.

Other changes have taken place. New innovative programs, such as off-campus offerings and campus without walls, have developed to meet societal needs and group demands. On a short-term basis the motivation for their development was good and the perceived harm small, but many of them now pose a serious threat to quality graduate education. Another recent phenomenon has been the establishment of new institutions of higher education which grant advanced graduate degrees in a restricted number of special areas and often operate in a non-traditional manner. These institutions may or may not possess a campus, a permanent faculty, or a library, and often will operate over large geographic areas. In some cases, these programs may be comparable to traditional campus degree programs, and in other cases not. In some cases they may be of high quality; in many instances they are of poor quality.

Given this rather disturbing situation, what then is to be the role and scope of the accrediting agencies? The accrediting agencies have traditionally focused on two concerns: educational quality and institutional integrity. What are the strengths and weaknesses of the accrediting association in carrying out evaluations of educational quality and institutional integrity? The accrediting association's strengths are derived from their history of past performance, their experience, their freedom of expression, and the fact that they are private. Their weakness in the past has been their inability to enforce minimum standards in all programs in all institutions. In addition, several new problems may develop for accrediting agencies and they center around: court judgments, sunshine laws, interaction with the federal government, and the possible defection of strong members should association standards become too low.

Accrediting agencies have in the past had as members a group of institutions that were fairly homogenous with regard to students, faculty, facilities, and the general educational delivery process. The methods and criteria for evaluation of educational quality at member institutions have been based on this homogeneity of institutions. Their standards may contain some reference to quality of individual graduate programs, but in general, the evaluation of the individual programs was left to the member institution.

At my own institution we have a graduate program evaluation process designed to utilize members of the graduate faculty to make an evaluation after the program faculty conducts a self-study. It may be useful to look at the strengths and weaknesses of evaluations as carried out by an accreditation association as compared with internal evaluations.

Accrediting Association evaluation of graduate programs:

Strengths

1. National or regional minimum standards applied.
2. External reviewers should be more objective.
3. Tendency to concentrate on tangible objective data.
4. The threat of external sanctions may make it easier to implement recommendations.
5. Evaluations should have greater awareness of National and Regional situations in many instances.

Weaknesses

1. Accreditation and/or certification requirements for professional degrees may not result in the best possible program of study and may actually interfere with programs.
2. Accreditation teams may become advocates which can lead to difficulty in local attempts to improve programs.
3. External evaluations often fail to focus on less tangible variables; e.g., leadership, teaching quality, morale, etc., which may be serious problems.
4. Exhaustive, detailed study is simply not possible. Faculty and student impact may be limited.
5. Process is a one-time operation, not inherently self-correcting.
6. Process does not always allow for consideration of idiosyncratic local needs.
7. Responsibility for self-improvement tends to be external. Response involves meeting external criteria and may not lead to program commitment to improve.

Internal program evaluation process:

Strengths

1. Broad range of information is covered (objective and subjective; tangible and intangible). Wide range of direct information from people is insured.
2. Considerable depth of evaluation (except for research quality) is possible.
3. Process tends to be self-correcting as it proceeds through several levels of review.
4. Produces greater involvement and communication among graduate faculty of the university and the program faculty and students.
5. Process can be easily tailored to meet local needs and conditions.
6. Allows for detailed followup to insure continuous progress is made.
7. Does a good job in uncovering leadership and program management deficiencies.
8. Encourages continual self-evaluation.

Weaknesses

1. Detailed examination of research quality is not possible because of lack of unbiased expertise.
2. Lack of regional and national standards for comparison.
3. External consultants rarely used.
4. Heavily dependent on evaluation committee quality and objectivity in proposing recommendations.

It would appear both the institutional internal review process and the accreditation review process are useful and the strengths of one process might be the weaknesses of the other. It is also apparent that many of the deficiencies of the institutional internal review process could be overcome by combining it with an external process however it is administered. This strongly suggests the accrediting associations should institute as part of the institutional review an evaluation of the institution's internal review of graduate programs with the option to request additional in-depth evaluations of programs of questionable quality.

The role of the accrediting association's evaluation of new graduate programs, whether they be at old member institutions or new institutions, is elusive. In those situations where the program to be initiated is well defined and standards for a reasonable quality program have evolved either regionally or nationally, the accrediting association should require that the institution meet the standards. However, where entirely new programs, new delivery systems, or new institutions are concerned and acceptable standards have not evolved, it would seem more appropriate to place the program on a probationary status and to defer acceptance to membership to the institution if it is their only program. Those programs put in this category should be carefully reviewed by both the institution and the accrediting agency before they are accepted as standard programs approved under the umbrella of institutional accreditation. Accrediting of new programs and new methods of delivery of education, as well as new institutions, in this manner should not have a stifling effect on their development. At the same time, a definite probation period would give time for careful study to assure that only new graduate programs of high quality became accepted under the institutional umbrella.

In conclusion, accrediting agencies should assure greater responsibility for guaranteeing the quality of graduate education and limiting the abuses inherent in societal demands for "credentialization." They have a new role to play in the evaluation of individual graduate programs under the institutional umbrella. First, they should work with graduate institutions to make certain that proper program reviews are conducted on a regular basis at the local level. Second, the accreditation of new or non-traditional programs should involve, on a routine basis, a period of probation and careful evaluation before final approval is given.

If these responsibilities are met, the accrediting agencies can help us to ensure that the credentials which we issue in the form of graduate degrees will have the value we would all like to ascribe to them.

Fifth Plenary Session—Business Meeting

Thursday, December 1, 1977, 2:00 p.m.-5:30 p.m.

CHAIRMAN'S ADDRESS

J. Chester McKee, Jr.

During the past year, your Executive Committee has been searching for the natural heading for CGS. We started out by circulating a questionnaire that was entitled "Issues 1977." This questionnaire was most helpful to the Executive Committee in preparing our analysis that was provided to the membership in a very brief report published in the *Communicator*. This has been a year of work and we are very appreciative of the fine staff in Washington for making this possible and to each and all of the members of the various committees, task forces, and those that have been called on to do extra work for CGS.

Out of the "Issues 1977" questionnaire, arose two special committees. One was the committee studying membership criteria for institutional membership in the Council. That special committee will report to you after this first part of the business session. They have circulated in accordance with the constitution a recommendation for your adoption or rejection at this meeting. The second special committee was charged with the task of reviewing the structure and function of CGS. This committee has met and worked very hard this year and has completed a draft document which has been circulated. The draft report will be discussed later this afternoon. The committee hopes for an open discussion and free expression of your feelings about this important subject.

A particularly active committee this year which has made a strong impact all over the country is the Publications Committee. I would like to call attention to the membership of that committee. Deans Jacob Cobb, Dexter Whitehead, Wendell Bragonier, and Shirley Spragg have done yeoman work this year and have produced several very important statements which have been well received throughout the entire country. Many of these statements have already been reprinted. Several of the statements and particularly the statement *Graduate Credit: Its Recognition and Transfer* has evoked much discussion, both pro and con. I was recently asked to address a group known as CAEL which many of you know is the Council for the Advancement of Experiential Learning. This group has taken great issue with our statement *Graduate Credit: Its Recognition and Transfer.* This area is going to be probably in the next year or two a lively topic for discussion as we address the problem of experiential learning and whether or not credit is provided for experiential learning or credit is given for experiences that have been completed outside of the purview of the academic institution. This is one of the many subjects and problems that confronts CGS and the graduate community today.

We have had two special projects that are nearing completion. One is the Gradcost study headed by Dean Joseph McCarthy and Will Garrison. The other, the "Dimensions of Quality" project, was undertaken jointly by CGS and ETS with Mary Jo Clark serving as the principal investigator. We had an excellent conference at Reston, Virginia, on the Dimensions project recently and we expect to come out soon with results of that conference and the results of the study.

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We have had increased activity in the area of federal relations in response to the "Issues 1977" questionnaire. Dr. Ryan has added on to his duties by representing CGS both over on the "Hill" and particularly by working cooperatively with the other associations at One Dupont Circle. John meets regularly with those representatives of the other associations and is wired in on the activities and we have had excellent results.

In turning to another matter, the Executive Committee received a letter on October 26 which did shake us up somewhat. I would like to read that letter to you now.

> Dear Colleagues:
>
> I wish to inform you that we have decided to opt for earlier retirement looking toward mid-1978 rather than the end of 1979.
>
> There will, of course, be final details to be discussed and a firm mutually agreeable date set. I trust, however, that with this early notification it will be possible for my successor to be chosen in time to assume responsibility by August 1, 1978.
>
> I wish to say to you with all sincerity that I have and do consider it a privilege to have served the Council for what next summer will be eight years. For us these have been personally rewarding years, made particularly memorable through the close personal ties we have enjoyed and do enjoy with the members and officers of successive executive committees.
>
> The affairs of the Council are in good shape. It has been and continues to be a strong force for betterment of the total graduate enterprise.
>
> I pledge my continuing best efforts in the remaining months in the presidency to keep the many activities of the Council at a high level of effectiveness and to work with you to provide for an effective transition.
>
> Sincerely,
> J. Boyd Page

This is a communication through the Executive Committee from our President, Boyd Page, which we received with great surprise and regret. The Executive Committee has voted to accept Boyd's request for early retirement. At the same time, the committee has asked him to consider remaining until there is a decision on the structure and function question which we do have before us and until a proper successor can be named. We certainly do not wish to impose on Boyd and Helen. We appreciate his wonderful approach to this and we will decide mutually on an agreeable date, but no later, of course, than mid-1979.

We wish to inform the membership that we expect a search committee to be appointed that will be in touch with each member institution and ask each member institution to provide the committee with suggested names for a successor. I would like to comment that Dr. Page has served this organization in a exemplary fashion since 1970. He was formally involved with CGS, both as an Executive Committee member for three years and as the President, Chairman-Elect and Chairman of the Executive Committee. He has been intimately involved with the activities of CGS for a period of well over twelve years and has had a great hand in shaping the destiny of this organization. In fact, he had a large hand at the very birth of CGS and we are indebted to his immense help at that time. Boyd has been very effective with the other organizations at One Dupont Circle and has viewed the role of CGS as being one that is very supplementary and complimentary to the other organizations by recognizing that as institutions guided by our presidents, we are involved with many of the other organizations. I would like to say from my standpoint that I think he has done a magnificent job at One Dupont Circle in Washington and around the world. He has represented CGS in a significant fashion on a number of important boards and commissions in this country such as COPA and GREB, not to mention other international groups. These endeavors have brought both prestige and recognition to the Council of Graduate Schools. From a personal standpoint, Boyd, I appreciate the tremendous help that you have given me this year. It would have been impossible to serve as Chairman of the Executive Committee without your guidance and help.

Returning briefly to one other matter that is simply a personal concern, I do have one comment to make to you. It is similar to a story that happened aboard my ship in the Navy. My little ship was engaged in the activity of supplying radio control planes for other ships to shoot at. This was an interesting thing and as usual we had many VIP's coming aboard. One morning, bright and early before getting under way to go out for exercises, we had a brand new commander attempt to come aboard. He came alongside in a small boat. The coxswain was inexperienced and brought the small boat alongside the Jacob's ladder of this ship. This newly appointed commander grabbed hold of the Jacob's ladder but he didn't step off the small boat. So, surely enough, the boats parted and as they parted he was stretched between the two until finally his feet slipped off the gunnels of the small boat and he collided with the side of the ship and down he went. Well, this man happened to be very bald headed, and when he came up, his bald head was shining and our boatswain's mate looked down, whacked him with the boathook, and said, "Go down and come back up again right side up."

Now, the point of that story is maybe we had better take a close look at what we are doing and go to Congress and the federal establishment right side up. I have the personal observation that we seem to think that we can look to people in Washington to turn the crank for us on all activities. We live in a political system and I think that if there is anything that we have to learn in state universities and working with political systems is that decisions are made through the political process. This means that we must have the support of the people who vote and have the power in these positions. We have to be very careful that we inform our representatives and senators of our activities and our concerns and our needs. I am of the opinion that very few of us in higher education do a very good job in informing our senators and congressmen of what our real concerns are and what we are really doing on our campuses. I wonder how many of us have had a senator or a congressman, or better yet, an entire delegation visit the campus recently to see what we mean when we speak about discovery of new knowledge, what we mean when we talk about innovations, what we mean when we discuss developing manpower for future generations. I think if there is anything that we have to sell right now rather than selling the record is trained manpower. I think the commodity that we really can sell best is what Dr. Hackerman was referring to yesterday and that is hacking away at this great stockpile of ignorance or selling the idea of innovation eminating from the graduate community in the various colleges and universities around the country. We have seen and discussed with many organizations over the last few years the decline of the United States' position relative to the development of new technology and innovation in the world. We have seen the Japanese, the French, the West Germans and others, outstrip us in this very important aspect of our economy. It really is a national concern in that it affects the economy of this nation. Just as the shipbuilding industry was able to sell and make its case to Congress for support to stay in business through the lean years, just as the steel industry is making its case now, I think we have an opportunity in graduate education and research to devise and make a case for the promotion of innovation and the protection of this important aspect of higher education in the various colleges and universities around the land. In my opinion, the way to do this is at the grass roots level and not looking exclusively to Washington.

It is our responsibility in the various states to work with our delegation and inform them about this important aspect of the national concern. The CGS staff has a tremendous opportunity and with the proposed expansion of the CGS staff, it is my hope that one of the prime factors in such an expansion will be to help devise the plans for mounting such an effort and coordinating the activities of the many institutions of the fifty states so that we may have this grass roots approach.

In concluding, I would like to say to you that I appreciated the opportunity of serving as Chairman of the Executive Committee this year. I enjoyed the association with each of the Executive Committee members and wish Don White the very best next year and hope that each of you will pledge to him your complete support. Thank you.

PRESIDENT'S REPORT

J. Boyd Page

I continue to feel it is a privilege to serve the Council and, for the eighth time, to report as President. There are, I feel, good things to report.

Since, if present plans are realized, this may be my last report, there are a few comments I should like to make beyond those normally expected in a report. These will refer mostly to history and to activities of the Council. What follows is likely to appear sketchy and lacking in continuity, but I feel strongly the constraints imposed by a full schedule for the remainder of the afternoon.

First to the report:

The affairs of the Council are in good shape—our membership stands at an all time high. It is notable that unlike most other higher education associations we have lost no more than six members—since our founding—and in every case the losses have been for compelling and understandable reasons.

The Council can justifiably claim to represent graduate education in all of its complexity and diversity—and therein lies both our strength and our challenge.

Our staff is small—with one possible exception, in the smallest of the associations at One Dupont Circle. Quality is, however, high and I am pleased to express sincere appreciation to Dr. Ryan, Judy Peluso and Ann Evans for the fine work they do in your behalf.

Our financial situation is sound, at least in terms of adequate reserves, but you should be aware that our annual expenditures now exceed income, a situation which cannot, of course, be allowed to continue. I should remind you also that unlike almost every other education association, our membership fees have remained unchanged for nine years.

Your Executive Committee is hard working and dedicated. It has worked most effectively under the able Chairmanship of Chester McKee—both the continuing and the terminating members are deserving of your appreciation.

Much of our work is done by committees and task forces on which more than 70 individuals serve. Ours, to an unusual degree is an association of, by, and for member representatives.

As you have seen, several major activities have come to completion this year—Gradcost, the Dimension of Quality projects, and issuance of a most significant set of position statements—all of which continue to be much in demand. These are widely accepted as setting standards which quality graduate study should meet.

The annual CGS-GREB enrollment survey has just been completed by Leslie White, Assistant Program Director of the GRE.* Copies will be available at the close of this session. This study is recognized and widely used as the most current and best indicator of trends available. Regrettably, the study reveals a small decrease in institutional responses—2.4 percent, but overall, 85 percent of the total CGS enrollment is represented.

Briefly, at Master's-highest institutions enrollments decreased 1.3 percent

- Overall enrollments remained essentially constant but the small difference was up (by 0.6 percent) rather than down.
- *First time* enrollments showed a 1.1 percent increase—this clearly is most indicative of future trends
- The sample for applications was somewhat less inclusive (from institutions comprising only 71 percent of CGS enrollment). For these representative institutions applications decreased by 1.6 percent
- Graduate assistants on appointment increased by 2.5 percent—overall 16 percent of total enrollment were graduate assistants
- Fellowship reappointments increased by 1.7 percent which represents 4 percent of total enrollment
- Master's degrees awarded increased by 2.3 percent
- Doctors degrees awarded decreased by 3.0 percent

So much for an all too brief report.

Let me now comment briefly on some history—not that it is unknown to many of you, but to help put some of our later discussions in context.

There are a few in this room, myself included, who on the basis of their own experience can testify that graduate education of high quality can be and was conducted with little or no federal support. At that time, graduate education both in support and supervision was left to the states, and it is noteworthy that by comparison with today, most institutions enjoyed essential autonomy. Some eighteen to twenty years ago, it became the clearly enunciated policy of the federal government to expand capability and production of holders of the doctorate, particularly in the sciences. In effect, the government undertook to buy Ph.D.'s I must say those of us who were then administering graduate schools responded with alacrity and soon became addicted to periodic infusions of increasingly large numbers of dollars supplied by the different agencies of the government. You know the results—the euphoria of the sixties rapidly gave way to withdrawal trauma. Ten years ago, an unannounced decision was made by the government to, in effect, get

*Editors Note—The entire survey may be found in the Appendix on page 165.

out of the market and no longer support expansion or maintenance of the graduate enterprise.

A dramatic decrease in gradaute student subvention has resulted. Today one is hard put to find one thousand fellowships available. A recent study reveals that only 4 percent of the total student aid is now going to graduate students—decreases in graduate student aid cannot be tracked directly but they have been more than matched by transfer to programs designed to increase entry at the beginning level of postsecondary education.

Why labor what is probably obvious?—not to continue to view with alarm but to emphasize that the reversal in federal policy is not only real—there is no indication that change is in prospect or to hope for new legislation for at least several years. We should not indulge ourselves in nostalgia or fantasty.

An all too prevalent myth is that a rational, carefully prepared presentation of graduate education as an essential social resource—which it is—as worthy of support—again, which it is—will clearly and rapidly lead to new funding—it will not.

The prevailing attitude—freely expressed—is that graduate education is a good thing but that there is no evidence that lack of federal subvention is critical since both total capacity and production are both considered to be surplus. These are tough arguments to refute.

I have with some reluctance been forced to the conclusion that the processes by which helpful change might be produced are primarily political and only minimally rational and this means that measures of potential votes or the direct pressures and persuasions that can be mustered "out there" will carry much more weight than presentations in Washington.

A statement made just last week by President Carter promising increased federal support for scientific reseach is encouraging, particularly for those of our member institutions most heavily engaged in research. We should note particularly, however, that in the same statement the President mentioned that "we are not trying to establish or maintain a *college aid program*."

I hope the foregoing will not be taken as indication of a defeatest attitude—I have tried only to be realistic. There is much to be done—and we need additional staff to help do it. But if our "pitch" is that more money—particularly for student aid (excluding specially targeted programs) is essential, our proposals are not likely to be effective or even to be welcome.

I hope it might prove useful, particularly to those of you who may not consider yourselves as "old hands," to give a very brief history of how the Council came into being and what has been considered to be its role in the higher education community.

Probably no more than four of us here present, Deans Arlt, Elberg, McCarthy and I participated in the action in 1960-61 by the Association of Graduate Schools which led directly to the formation of the Council. An almost equally small number of deans now present were among the one hundred institutional representatives who implimented the recommendations and in 1961 established the Council.

The motivation for the action was that AGS, although representing a major segment of graduate education, could not truly speak for all of graduate education—this was and is the central theme. Let me quote from the original report:

> . . . a national organization is needed (1) to provide a channel through which the wisdom and experience of all those most knowledgeable about

> graduate education may be brought to bear, in concentrated and effective fashion, upon governmental agencies and foundations interested in questions affecting the graduate schools; (2) to provide assistance to both the established and the newer graduate schools in the working out of new programs and in the revision of the processes and procedures of graduate education; (3) to provide opportunity for a comprehensive annual meeting of representatives of these graduate schools; and (4) to collect and disseminate information about the country's graduate schools.

It is appropriate that the activities and accomplishments of the Council be evaluated in terms of these objectives.

A few additional quotes from the minutes of the first meeting of the Executive Committee of the newly organized CGS may be of interest in light of recent developments—remember this is April, 1961:

> It was reported that the AAU had recently reaffirmed its vote to have a Washington representative.
>
> It was pointed out that the ACE might be planning to move into graduate education.
>
> Some felt that if the Council waited too long—until the AAU had a Washington representative and the ACE had expanded into graduate education—it would be extremely difficult for the Council to set up a Washington office.
>
> It was stated that the fear of the presidents was that deans (like the medical school deans) might assume an independent role and present themselves as spokesmen for higher education regardless of the *wishes of the presidents* or *the needs of the total institutions.*

I think they say something to us now.

The last quotation leads me to make the following observation. We should recognize that in representations in Washington, except in a few situations, a graduate dean will not have as much impact as a president. Maybe it should not be that way but in our system it operates just that way. If this is true, and I have seen ample proof that it is, the presentations that are made in behalf of graduate education must be carefully orchestrated with other associations and if it turns out that the most effective spokesman would be a president, preferably one who happens to be in the constituency of the Chairman of the hearing committee, that is the way the job gets done.

Enough of history, now to today—it is worthy of note that the strongest special interest group in CGS, the deans of the AAU institutions, have never, to my knowledge, acted as a group to dominate or control the organization. Furthermore, dues for all member institutions have been kept equal, representation is equal, and to the best of our ability services have been kept equal. A review of the composition of the succeeding executive committees will reveal that all of our members institutions have been well and equally represented.

The purpose of CGS is carefully spelled out in the Constitution—we have been guided by those principles in setting priorities and marshalling our limited resources—we have not neglected independent efforts to obtain increased federal support but we also cooperate with, supplement, and provide input to other associations in their targeted areas of activity. Through cooperation, our efforts are magnified—if we were to act independently, except in special cases, we would in my opinion, most likely be ineffectual and wasteful.

We need additional personnel and stepped-up effort to expand direct services to our members, to participate more actively with the more than 15 full-time federal relations experts now covering higher education both broadly and specifically. Special interests of many identifiable sub-groups within CGS are now being addressed—and new personnel are being added. I urge that we increase our efforts to strengthen our ability to cooperate and supplement.

At the outset I mentioned diversity and breadth of coverage as being both our challenge and our strength—we need to target our efforts in terms of a realistic interpretation, not just on what would be desirable, but on what is probable, in the political world in which we must operate, to be achievable as well. Furthermore, we must keep in mind that needs and concerns of our 357 member graduate schools are spread rather widely. Approximately 30 percent of our members award the Master's as the highest degree. Twenty-two of our member institutions are AAU institutions, 26 hold membership in both Land Grant and AAU, 59 non-AAU institutions hold membership in Land Grant; for a total of 107 research universities (30 percent of CGS) represented by one or another or both of these associations which are active in promoting the causes of their member institutions to government and the public. Similarly, others of our members belong to additional associations which actually promote the special interests of their member institutions. Finally, all hold membership in ACE. Altogether this represents a strong and effective effort of which we are and must be a part.

Summing up—I see the Council as an important organization playing a significant role in helping to shape the graduate enterprise as it responds to emerging social pressures and individual needs. Additional resources are needed to enhance and broaden our influence. I believe that the Council is needed now more than ever before. As most organizations change, and are now changing—in response to emerging perceptions, the Council too must change but I do not believe that drastic change will be required. Needed changed should be evolutionary, not revolutionary, and should be directed toward strengthening and expanding where necessary, and toward assumption of new roles as need for such change becomes evident.

I urge that the potential for effectiveness in representation of whomever will succeed to the position of chief executive officer, not be diminished by a lesser title than President. Washington may be unduly concerned with titles and protocol but in the way things operate in Washington, these are especially important.

I urge that augmented staff be centered not with limited focus on broad service to our constituency. Relations with the federal government should be prominent but not, in my view, dominant. A model of two competent, thoroughly professional individuals appointed as Vice Presidents, one possibly focusing directly on services to members and internal operations; the other focusing more on external activities, primarily governmental relations both federal and state and public relations as well, is suggested. These assignments should not be exclusive but overlapping and supportive of a strong President. It is imperative, I believe, that close cooperation with other associations which have shared concerns must be maintained.

We do foresee the inevitability of stepping aside for others to carry on—and to build an ever more effective association to keep graduate education strong. That time is not yet, however, and we pledge our best efforts to serve effectively and to work toward a smooth transition at the opportune time.

This is not in any sense farewell—I appreciate your continued support and for the privilege of continuing to serve, and thank you for your patience in allowing me to express some of my views relating to future directions.

Committee Reports

REPORT OF THE AFGRAD COMMITTEE

Gustave O. Arlt

The African Graduate Fellowship Program has been in existence for fourteen years, and since it has never made a report to the Council I thought that this was a good time to do so, especially since there will be some changes in the program this coming year. AFGRAD was conceived in 1962 and first went into effect in March of 1963. The functions of the committee include the establishment of policies for the award of fellowships to graduate students from African countries studying in American universities, assisting bi-national committees in African countries in the selection of such students, making the final selection of those who are nominated by their own countries or by their universities, and placing the students in American universities.

The program is a combination of three different powers which includes AID of the U.S. State Department, which supports the African students through their study in this country, the African governments who supply the international transportation for these students, and the American universities who become hosts to these students as they are selected. These American universities are all members of the CGS.

From March, 1963, through June, 1977, 1,301 students from 33 African countries have received awards. Of these 1,301 students, 92.3 percent have completed their degree requirements and received degrees while 7.7 percent withdrew for various reasons, either academic or personal. If we compare that to the like rating figures for the indigenous American students we find that they are really considerably better than our indigenous race. Repatriation rates of the students who have completed their work is 90.7 percent. In other words, more than nine out of every ten of these African students will complete their work here and will go back to their own countries where they will occupy positions of importance and prominence.

Throughout fiscal 1977, there were 438 African graduate students enrolled in 104 of our member institutions. Of these, 318 were continuing from the preceding year, and 120 were new appointees. Graduate deans are always interested in costs; and, therefore, I will give you cost figures here because I think they are of some significance. For FY 1977 student costs reimbursed by AID were $2,089,050. This was expended for the maintenance of these students. That makes the average program cost per student $4,655. In addition, AID paid an average of $1,184 per student in administrative costs, which brings the total cost per student to $5,839. Compared to the cost of maintaining an American student in an American university, this is relatively low. The contribution of the academic community from the CGS members who have been host to these students amounted to a whopping $820,681 in one year. If we average that out over the fourteen years, it means that the American academic community has contributed between $11 and $12 million to the maintainance of this program. Finally, the African governments paid an estimated $191,000 in transportation costs.

So much for the historical situation. Now I come to that portion which is of immediate interest to us. Beginning with FY 1973, that is this current year, AFGRAD has undergone a considerable restructuring that was directed by the Congress through AID. The participating agencies are all under constraint now to carry out the continuation of this program under the new director. In the first place, nominations by African countries have to be backed up by specific manpower needs and the acting government must report these manpower needs to the AID mission in their own country. The AID mission then submits these figures to AID Washington, where they are reviewed and then in the consultation with the African American Institute and with the CGS committee on African Graduate Programs, the determination is made whether the fields which have been recommended can be accommodated in American universities. Without going into too much detail, the manpower requirements for the various African countries will vary considerably; however, the following fields which will receive the most emphasis include economics and business administration; engineering; sciences, both physical and life sciences; agricultural fields; and educatiôn. The humanities and fields that do not represent immediate manpower needs for African countries will not immediately receive consideration in the further award of fellowships. That has always been the case; however, we have always been able to make special arrangements with the State Department outside of AAI structure to get a few humanities students into the picture where they seem to be needed and especially wanted.

REPORT OF THE TASK FORCE ON GRADCOST

Joseph L. McCarthy

Since the last annual meeting of the CGS in Denver in December of 1976, substantial additional progress has been made toward the CGS "Gradcost" project goal of estimating costs of graduate programs leading to the degrees of Master and Doctor of Philosophy by several different procedures at several different universities and colleges.

The Gradcost Study was initiated in 1970 with major financial assistance from the National Science Foundation. The results of this study were published in 1972 by the Council of Graduate Schools in the United States in the form of three reports. Two were authored by John Powel and Robert Lamson and were titled "An Annotated Bibliography of Literature Relating to the Costs and Benefits of Graduate Education" and "Elements Related to the Determination of Costs and Benefits of Graduate Education." The third was written by Joseph L. McCarthy and David R. Deener under the title . . . "The Costs and Benefits of Graduate Education: A Commentary with Recommendations."

The Gradcost II project consisted of developing preliminary statements of procedures and also estimates of the costs for Master's and Ph.D. programs in Chemistry at two universities. This work was conducted by Joseph L. McCarthy and Daivd R. Deener with financial assistance from CGS. The results have been summarized in an informal report which was accepted by the Executive Committee of CGS and filed during 1975.

The Gradcost III Study was undertaken in 1974 with major financial assistance from the National Institutes of Health under the policy guidance of the CGS Gradcost Committee and with Joseph L. McCarthy, University of Washington and David R. Deener, Tulane University, serving as Director and Co-director respectively.

The work proceeded during 1975 and 1976. During the latter year, we suffered the loss of two of our colleagues, Dr. Steven H. Hatchett of the National Institutes of Health who almost single-handedly promoted support for the Gradcost project, and Dr. David R. Deener who contributed much to graduate education and to this project. The activity has been carried out mainly in Seattle at the University of Washington where Research Associate Dr. William D. Garrison has devoted full time to this work.

Extensive academic and financial information was collected from some twelve diverse types of universities and colleges in the United States concerning Master's and Ph.D. programs offered in the fields of Biochemistry, Cell Biology, Chemistry, Economics, English, Mathematics, and Psychology. Costs were considered in four categories: "Departmental Costs"-those reflected directly in the departmental budget; "Support Costs"-those reflecting extra-departmental institutional support such as library, student services, plant operation and maintenance, and general institutional and administrative costs; "Student Appointment Costs"-those associated with graduate student fellowships, assistantships, tuition waivers, etc; and "Grant and Contract Research Costs."

Cost estimating procedures and computer programs for carrying out calculations have been developed and applied to all available data. Writing and review of the report is nearly finished, and it is anticipated that the Gradcost III project will be completed by January 1, 1978, and the final report published shortly thereafter.

It is hoped that this study: (1) will help interested persons to understand the nature and magnitude of the costs of graduate education; (2) will provide generally applicable procedures by which approximately valid estimates of the costs of graduate degree programs may be made expeditiously and inexpensively; and (3) will give some examples of ranges of estimated graduate degree program costs in several fields.

Comments and suggestions concerning this study and possible application of the findings will be welcomed and may be addressed to me or Dr. Garrison.

COMMITTEE ON THE PART-TIME GRADUATE STUDENT

Herbert Oyer

Mr. Chairman, the report will be brief since tomorrow we will be presenting a workshop on the findings of the committee study. The Committee on the Part-time Graduate Student was constituted approximately two and one-half years ago, and since that time the membership has changed somewhat and presently consists of the following: James McLeod, Assistant Dean, Washington University; Sam Webb, Dean, Georgia Institute of Technology; Nelson Horn, Associate Dean, University of Southern California; Alicia Tilley, Dean, Memphis State University; Norman Mintz, Associate Dean, Columbia University; and myself. Miss Penny Foster of the National Science Foundation has served in an *ex officio* capacity as a consultant to the committee, and Mrs. Barbara O'Kelley of Michigan State has served as research associate.

The charge to the committee was to consider the status of part-time graduate students and the many implications associated with part-time study. To fulfill the charge, the committee developed a questionnaire which was distributed to all the CGS member institutions. A part-time graduate student survey instrument was then developed. It was mailed in mid-June and achieved a 75 percent response rate, for which we were very grateful. The two major problems highlighted by the survey are financial aid for part-time students and the lack of institutional information about part-time students. The final report is being developed with recommendations and will be submitted to the Executive Committee in the very near future. Thank you.

REPORT ON THE TASK FORCE ON TRANSFER & EQUIVALENCY

David S. Sparks

The task force has not met during this past year. We feel the ball is in the other court. We are waiting for more response of the kind you have described today from the membership of CGS. We are quite willing to go back to work if there is a desire that we do so.

COMMITTEE ON THE MASTER'S DEGREE

Bernard J. Downey

The chairman of this committee is Dean Dale Comstock of Central Washington University who was not able to be at this meeting. The committee met once during the summer to develop a second draft of a proposal to support a study on the nature and quality of the Master's degree. This study was envisioned as making use of all pertinent and existing documents as well as developing a comprehensive questionnaire to be distributed to the CGS membership. The draft was submitted to the Executive Committee by Dean Comstock at its recent fall meeting.

NEW BUSINESS

REPORT OF THE NOMINATING COMMITTEE

Margaret N. Perry

The Nominating Committee this year consisted of Deans Joe N. Gerber, Stephen F. Austin State University; John Nellor, University of Nevada; Harry Sisler, University of Florida; and Albert Yates, University of Cincinnatti, and I want to thank them all for the help they gave me in this task.

We have three nominees for three-year terms on the Executive Committee—Phyllis Bober, Bryn Mawr College; Beverly Cassara, University of the District of Columbia; and Paul Albrecht, Claremont Graduate School. Nominated for a two-year term to fill a vacancy is Earle Canfield, Drake University. Nominated for a one-year term, again to fill a vacancy, are Bernard Downey, Villanova University; and J. Knox Jones, Jr., Texas Tech University. Nominees for the Nominating Committee for 1978 are Giles Brown, California State University, Fullerton; Mary Ann Carroll, Indiana State University; and James Reeves, Tennessee State University. Mr. Chairman, this represents the report of the Nominating Committee.

J. Chester McKee, Jr.

Thank you, Margaret. This report of the Nominating Committee comes as a seconded motion, and the floor is now open for nominations. Are there any nominations for the Executive Committee from the floor? All in favor of the nominations presented by the Nominating Committee say "aye." Opposed. So ordered. This then has the effect of electing Phyllis Bober, Beverly Cassara, Paul Albrecht, Earle Canfield, Bernard Downey, and J. Knox Jones, Jr. to the Executive Committee and Giles Brown, Mary Ann Carroll, and James H. Reeves to the Nominating Committee.

I would like to announce that the Executive Committee at its meetings on Monday and Tuesday elected as the incoming Chairman-Elect of the Executive Committee Dr. Robert Kruh of Kansas State University. Dean Donald J. White of Boston College moves from Chairman-Elect to Chairman of the Council in 1978.

MOTION FROM RESOLUTIONS COMMITTEE

William S. Willis

The Resolutions Committee has three resolutions to bring to you. First, be it resolved that the Council of Graduate Schools express its deep appreciation to J. Boyd Page for his productive years of service to the Council and that the Executive Committee be empowered to determine an appropriate means of demonstrating this expression of appreciation.

Secondly, whereas: Deans Sanford S. Elberg, Past Chairman, Joe N. Gerber, Michael J. Pelczar, Jr., and Margaret N. Perry have rendered priceless and invaluable service for the enduring benefit of the Council of Graduate Schools and graduate education during their tenure as members of the Council of Graduate

Schools' Executive Committee and whereas: their distinguished intellectual contributions have been matched fully by their exemplary warmth of feeling, understanding and wit be it therefore resolved: that they be extended the deepest gratitude and appreciation of their admiring colleagues on the Executive Committee with heartiest best wishes for their continued success and happiness.

Thirdly, on behalf of the members of the CGS, the Resolutions Committee wishes to express its keen appreciation to all those whose individual contributions made this 17th Annual Meeting of the CGS such a lively and, at times, hammering success. We wish first of all to thank the many fine speakers for bringing to us some of the fruits of their diverse talents and experience. We thank also the various officers and committee members for their generous and ongoing efforts in bringing to such a high state the art of arranging annual meetings. Finally, we express our gratitude to the Marriott Corporation for its cooperation in making available to us its impressive hotel and conference facilities in the historic and gracious city of New Orleans.

J. Chester McKee, Jr.

Thank you very much, Bill. That finishes our business down to the report of the two special committees unless someone has some item of new business to report. There being none, I will then recognize Bob Kruh who is chairman of the special committee dealing with membership criteria.

Robert F. Kruh

Mr. Chairman, this is a very brief report. I will simply depend on the memorandum of August 23, which was mailed to all membership deans, setting forth the proposed constitutional amendment and additional by-laws having to do with criteria for membership in the Council of Graduate Schools. Most of you are familiar with the fact that over the years the current language of the constitution is rather quantitative and it actually allows for perhaps a clerk to determine the plans for this provision. A number of our members from time to time have expressed some desire that a more qualitative statement be incorporated into our constitution, and so at the request of several of the members of the Council, the committee was established to propose new language, that committee consisting of Dean Spriesterbach, University of Iowa; Charles Nelson, Tufts; James Bartoo, Penn State; George Kunze, Texas A&M; and myself.

The proposal that we generated is embodied in the memorandum I referred to. There have been, however, a number of comments received in the Washington office about the language contained in that proposition and so each of you should have a one-page sheet written in the sort of amended statutory style showing some of the changes which have been incorporated as responses to the members suggestions to the memorandum. Mr. Chairman, I would be glad to answer any questions about this but would submit this report as a seconded motion for the consideration of the Council.

J. Chester McKee, Jr.

Thank you, Bob. You have all received copies of this with the correct notice, ninety days before this meeting. There have been minor editorial changes made in this since that time. To be perfectly legal and within our constitution, I will ask for a motion that these editorial changes be accepted for consideration before we vote on the final document. Is there such a motion? All in favor say "aye." Opposed. That has the effect then of providing that this document meets the constitutional requisites. We have then before us a seconded motion by the special committee that this be adopted. Is there any discussion? We have called for the question. If you are ready to vote I will put the vote to you now. All in favor of the circulated document as changed say "aye." Opposed. So ordered.

COMMITTEE ON STRUCTURE & FUNCTION

Dean Robert F. Johnson, Florida State University, serving as chairman of the Committee on Structure & Function, presented the preliminary report of the committee to the membership.

The main substance of the report contained seven major recommendations which included the following:

- The present Executive Committee should be replaced with a Board of Directors.
- A new staff position, Associate Director of Federal Relations, should be created.
- The position of Assistant Director for Administration should continue largely as it is now.
- Since income from present membership fees is inadequate for operation of the proposed expanded Council, an increase in the annual dues was proposed.
- The title of the chief staff officer should be changed from President to Executive Director.
- The President of CGS should be elected annually by the member institutions from institutional representatives to serve as Chairman of the Board of Directors.
- One-half of the Board of Directors should be elected from the membership-at-large and one-half should be elected by the four regional associations.

After Dean Johnson concluded his presentation, he and other members of the committee responded to questions from the floor concerning the proposed changes. Several deans commented on the inadvisability of changing the title of the chief resident executive officer from President to Executive Director.

There was also discussion regarding the framing of an equitable dues structure policy. Finally, several members commented on the need to delineate the proposed functions of the staff to prevent overlapping.

The committee members thanked the membership for their comments and concerns and indicated they would be taken into consideration in the formulation of the final report. Since the report was presented for discussion purposes, no formal vote was taken.

J. Chester McKee, Jr.

This brings us now to the final act, and I would ask Don White to please come forward and let me pass on to him this gift. Don, it is a real pelasure to turn this gavel over to you, and we wish you a very successful year.

Donald J. White

Time is short, but I do wish to express abiding appreciation to all of the officers of the Council with whom I have been privileged to serve these last years. My thanks especially go to Sandy Elberg, Past Chairman, who is leaving us and is truly a man for all seasons! To Chet McKee, one of nature's noblemen; to Margaret Perry who made extraordinary contributions with the Summer Workshop and chaired the Nominating Committee; to Joe Gerber, a steady source of strength and wisdom; to Mike Pelczar, who is retiring, and will be much missed as a steady source of first-rate ideas and invaluable advice; and Gail Fullerton who is leaving us because she is moving up to Executive Vice President at San Jose, and who contributed so much to the Executive Committee. I am looking forward eagerly to working with those who are continuing on the Executive Committee and those newly joining in.

I want to pay special tribute to the members of the Program Committee who provided so much assistance in developing this year's program—Phyllis P. Bober, Giles T. Brown, Earle L. Canfield, Norman S. Cohn, Frank J. Hilferty, Benjamin F. Hudson, William H. MacMillan, Peter S. McKinney, Louis G. Pecek, Arnold E. Schwartz, and James G. Traynham.

In closing, may I say that I believe that institutions, no less than people, are measured by the majesty of their dreams and the degree of their dedication to purpose.

Therefore, may I suggest that we take the advice of an anonymous author: "Make no little plans; they have no magic to stir men's blood—make big plans; aim high in hope and work."

With the cooperation of all, there is no limit to what we can accomplish.

"Early Bird" Session

Friday, December 2, 1977, 7:30 a.m.-8:30 a.m.

GRADCOST

Approximately fifty persons attended and participated in a discussion of the Gradcost III procedures and results which were reviewed in further detail by Drs. Joseph L. McCarthy and William D. Garrison, Jr., of the University of Washington, and Mr. Jess Morgan who is Vice President for Business of Tulane University, and also retiring President of the National Association of College and University Business Officers. Comments and questions ranged widely over the whole field of costs and benefits of graduate education. The procedures for estimating costs seemed to be of particular interest in relation to possible application to compare departments within a single institution, and also with a system including several institutions. It was noted that the estimated costs for a particular field varied rather widely among departments associated with different institutions, and hope was expressed that these differences could be correlated, at least to some extent, with the characteristics of individual departments.

Almost all of those attending remained present through the session, and many indicated that they hoped that the final Gradcost III report would soon be available for detailed study.

Concurrent Workshops

Friday, December 2, 1977, 9:00 a.m.-10:15 a.m.

THE PART-TIME GRADUATE STUDENT

Chairman: Herbert J. Oyer, *Michigan State University*
Penny D. Foster, *National Science Foundation*
Sam C. Webb, *Georgia Institute of Technology*
Nelson T. Horn, *University of Southern California*
Resource Person: Barbara O'Kelley, *Michigan State University*

Herbert J. Oyer

Good morning. I am Herb Oyer, Dean of the Graduate School at Michigan State University. My distinguished colleagues participating in the workshop are Deans Sam Webb of the Georgia Institute of Technology; Nelson Horn of the University of Southern California; Penny Foster, Acting Director of the NSF's Universities and Nonprofit Institutions Studies Group; and Barbara O'Kelly, research associate in the office of the Graduate School at Michigan State University.

The plan of the workshop is to have four brief presentations and to allow some time for discussion of the implications of data presented. The data, in the main, were generated by response to a questionnaire that was developed by the CGS Committee on the Part-Time Graduate Student. The Committee members were Deans Alicia Tilley of Memphis State University; James McLeod of Washington University; Norman Mintz of Columbia University; in addition to Deans Horn, Webb, and Oyer. Ms. Foster served as a consultant to the committee, and Mrs. O'Kelly did most of the data summaries and analyses.

Purpose

The purpose of the survey was to determine the status of part-time graduate study across the country in relation to institutional policies, procedures, and attitudes. Additionally, we were interested in learning about student mix, types of programs offering opportunities to part-time students, levels at which part-time study occurs, adjustments made by institutions to accomodate the part-time student, the financing of part-time students, and something about the kind of information institutions have concerning their part-time graduate students. In some instances our findings seem to be rather conclusive, in others they simply raise further questions, whereas in still others there are rather well defined issues that emerge.

Definition of Part-Time Student

For purposes of the study a part-time graduate student was defined as "a post baccalaureate student who is considered to be a part-time graduate student (on or off campus) by your institution."

Instructions

It is important to point out that a suggestion on the front page of the questionnaire read as follows: "In answering this questionnaire please give responses that indicate a general trend within your institution. It is not expected that you make a detailed statistical analysis of units." Thus responses to some questions were estimates rather than detailed assessments.

The questionnaire was sent to all CGS member institutions, and the response rate was 75 percent.

As we move along you will see that for most analyses the institutions were classified into the four types used in other CGS studies:

I. Private – Master's-granting
II. Private – Master's-and doctorate-granting
III. Public – Master's-granting
IV. Public – Master's-and doctorate-granting

Plan for the Workshop

With its 29 questions, the questionnaire generated a great deal of data. Our plan today is to highlight those areas of greatest interest from which flow some issues that deserve further consideration. I shall describe the comparative picture of part- and full-time graduate student numbers as a function of "type" of institution, "type" of program, discipline, and student mix. Ms. Foster will present a comparison of the overall status of part-time graduate students with those in science and engineering as shown by the NSF surveys. Dean Webb will discuss faculty, academic and administrative adjustments to the growing numbers of part-time graduate students Dean Horn will present data concerning institutional attitudes towards part-time graduate students, their financing and some concerns regarding the status of information about part-timers and their general welfare.

Comparison of Part- and Full-Time Graduate Student Enrollment Through Time

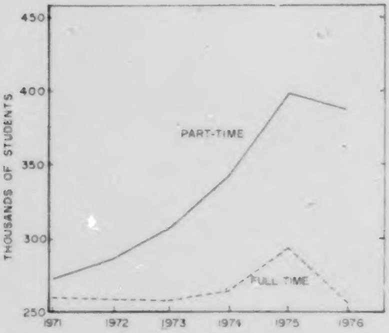


FIG. I. PART-TIME AND FULL-TIME GRADUATE STUDENT ENROLLMENT, 1971-1976.

The participation of part-time graduate students has risen dramatically since 1971. You see here the comparison of full- and part-time graduate students based upon reports of CGS-GRE Survey data. In 1971 there was a difference of only 12,883 between full- and part-time (51.2 percent part-time). Since then full-time graduate enrollment has increased only 10 percent whereas part-time graduate enrollment has increased over 30 percent and now accounts for over 60 percent of total graduate enrollment.

Part-Time Graduate Study and Type of Institution

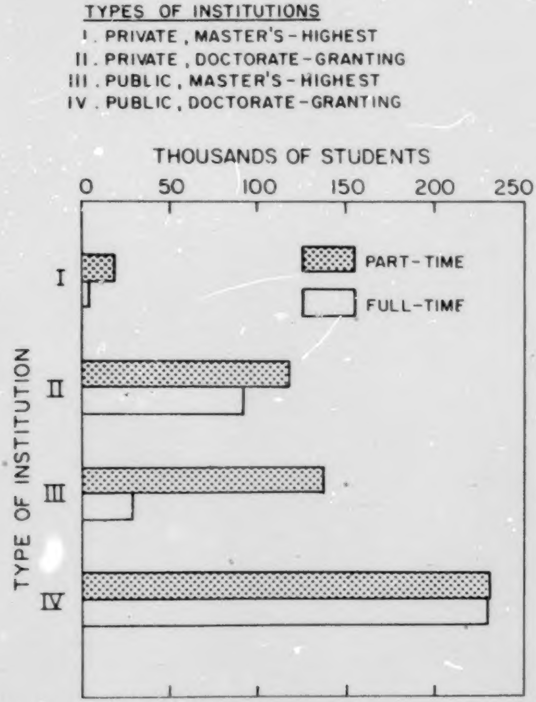


FIG. 2. PART-TIME AND FULL-TIME GRADUATE STUDENT ENROLLMENT, FALL 1976.

This graph shows a comparison of part-time and full-time graduate student enrollment in Fall, 1976, by type of institution, as derived from our questionnaire. As you can see, the majority of the graduate students are part-time in all types of institutions. The preponderance of part-time students is much larger, however, in master's-highest institutions, where over 80 percent of graduate students are part-time, compared to slightly over 50 percent in doctorate-granting schools. An additional analysis was done of part-time enrollment as a function of urban, surburban, or small town setting but there were no substantial differences based on location.

Comparisons of Full-Time/Part-Time Study and Level of Students

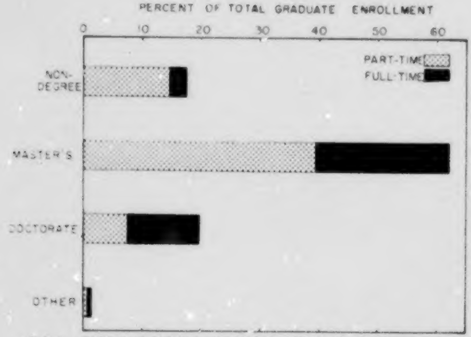


FIG. 3. PART-TIME AND FULL-TIME GRADUATE STUDENT ENROLLMENT FALL 1976, BY TYPE OF PROGRAM.

The data on this graph show the part-time/full-time comparisons according to the levels of program in which graduate students are enrolled.

a. Non-degree students comprise 17.45 percent of all graduate students—85 percent of these non-degree students are part time.

b. Master's degree students comprise 61.70 percent of all graduate students, and 63 percent of them study part time.

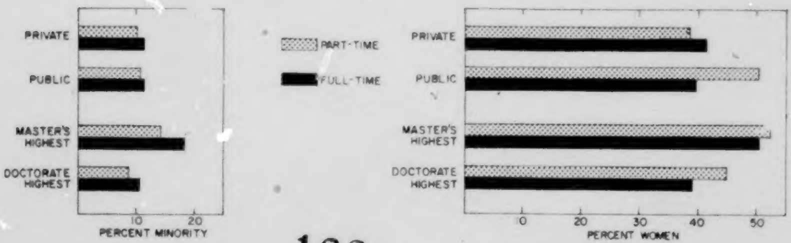
c. Doctoral students comprise less than 20 percent of all graduate students, with nearly 38 percent enrolled part time.

d. Other students, e.g. Ed.S. and D.A.G.S., etc., comprise 1.20 percent of all graduate students, 69.3 percent of these students are part timers.

In summary, then, according to the 1977 survey, part-time students predominate at all levels of graduate study except in doctoral programs. Interestingly, full-time doctoral students comprise only 12 percent of total graduate enrollment.

Full-Time/Part-Time Graduate Study: Minorities and Women

FIG. 4. ENROLLMENT OF MINORITY AND FEMALE PART-TIME GRADUATE STUDENTS, FALL 1976



This chart presents some percentage comparisons on the part-time/full-time graduate student picture in relation to minorities and women.

Minorities

One can see at a glance that in both public and private institutions and in both master's-highest and doctorate-granting schools, minority students comprise a larger percentage of the full-time than of the part-time student body.

Women

The situation for female enrollment is more complex. In private institutions a greater percentage of full-time student body is female, while in public institutions the percentage of women as part-time graduate students exceeds the full-time (50.5 percent part time/39.8 percent full time).

When the analysis is made on the basis of the highest degree awarded by institutions, the percentage of women among part-time students exceeds full-time in both those institutions offering the master's as the highest degree and doctorate-granting schools. (Master's–part time: 52.4 percent/full time: 50.6 percent) (Doctorate–part time: 45.1 percent/full time: 39.1 percent).

Full-Time/Part-Time Enrollment and Disciplinary Area

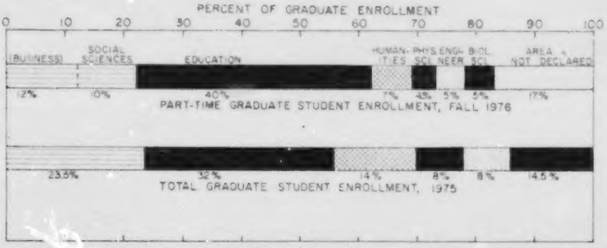


FIG. 5. DISCIPLINE AREAS OF PART-TIME VS. ALL GRADUATE STUDENTS.

This figure compares part-time and full-time graduate enrollments in the various areas of study.

The lower bar shows a percentage breakdown of the total full- and part-time enrollments by disciplinary area as per the 1976-77 CGS-GRE Annual Survey. Note that the field of Education comprises almost one-third of the total enrollments. The next highest is Social Sciences inclusive of Business. These two areas alone account for 55.6 percent of total enrollments.

Insofar as part-time study is concerned the responses to the questionnaire revealed that in 1976, the field of Education accounted for 40 percent and the Social Sciences and Business jointly accounted for 22 percent. Thus Education, Social Sciences and Business accounted for 62 percent of all part-time students.

Summary

1. Nearly 60 percent of the graduate students in the U.S. attend part time.

2. The majority of part-time graduate students ranges from slightly over 50 percent in the public doctorate-granting institutions to 83 percent in the private masters-granting institutions.
3. Minority graduate students are more likely to be enrolled on a full-time basis than their other colleagues, while women are more likely to be studying part-time than their male counterparts.

Questions and Issues

1. Should the predominance of part-time graduate students affect budget and curricular planning? If so how?
2. What are the implications for program quality, if any, in view of the rapidly escalating part-time graduate student involvement?
3. What implications are there for the traditional statute of limitations and residence requirements in view of rising part-time graduate student enrollments?

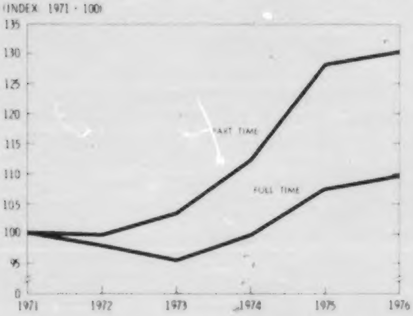
Penny D. Foster

Dr. Oyer has set the stage in his description of the CGS survey as it applies to all part-time students in graduate schools. I will describe the National Science Foundation's statistics on the graduate science and engineering component.

First, to put these data in perspective—they are part of a national data base maintained by the Division of Science Resources Studies that includes statistics collected from universities on an annual basis. The university science statistics program collects science and engineering data on graduate enrollment, employment, and R&D expenditures, augmented by a survey of 14 Federal agencies and their annual obligations to universities and colleges. These surveys of the university sector form an important part of NSF's role in measuring the national scientific enterprise. The charts you were shown on Wednesday by Dr. Hackerman in his leadoff speech were developed within this Division and many of the R&D figures were supplied by your universities' business offices. As you can see, they form the basis for the making of Federal academic science policy and as such are a vital ingredient in the decision-making process.

The graduate enrollment data collected by NSF are of equal relevance in measuring the current status of our scientific manpower resources. *The Fall 1977 Survey of Graduate Science Student Support and Postdoctorals* will probably be on your desks when you return home, and many of you have already participated in our quick response survey, the sample of 1,700 departments that is mailed early in the academic year. As you can see in Chart 1, I have converted the trend data to an index

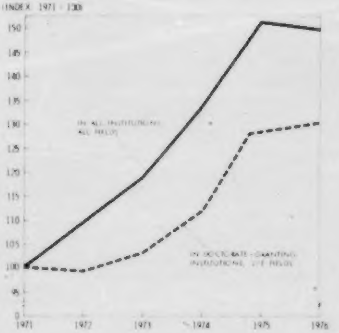
CHART 1. GRADUATE SCIENCE ENROLLMENT IN DOCTORATE-GRANTING INSTITUTIONS BY ENROLLMENT STATUS: 1971 - 76



SOURCE: NATIONAL SCIENCE FOUNDATION

format; beware of jumping to conclusions, however. The part-time component is not larger than full time in science—the index chart makes it look that way at first glance. What it shows is the 30 percent increase in part-time enrollment over the period 1971-76, as compared with the 10 percent increase in full-time enrollment, growth that parallels the national totals shown earlier by Dr. Oyer. Be sure you understand that we at NSF are keeping track of only about 80,000 science/engineering part-time students out of the nearly 400,000 being surveyed by the Council of Graduate Schools. Note the slowing down in recent years of this rate of growth, and begin thinking of your own university's experience in this regard that you may wish to share with us later.

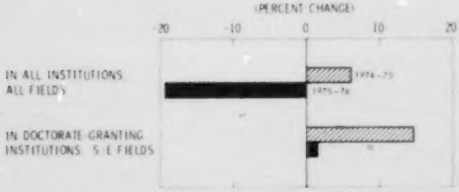
CHART 2. PART-TIME ENROLLMENT IN INSTITUTIONS OF HIGHER EDUCATION: 1971 - 76



SOURCE: NATIONAL SCIENCE FOUNDATION AND NATIONAL CENTER FOR EDUCATION STATISTICS

In Chart 2 I have shown, again in index terms, the 1971-76 growth in part-time enrollment in *all* levels of higher education and in *all* academic fields, as reported by NCES. Science and engineering enrollment on a part-time basis grew at about 30 percent while *all* part-time enrollment grew at about 50 percent over the period. The downturn on the top line is illustrated further in the next chart, (Chart 3), showing

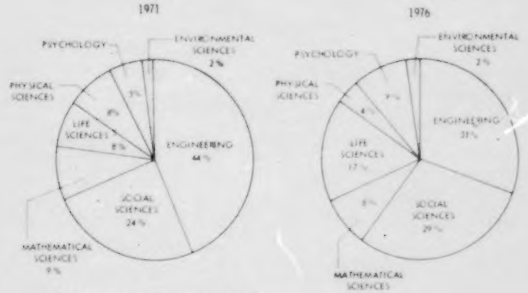
CHART 3. CHANGES IN PART-TIME GRADUATE ENROLLMENT: 1974 - 76



SOURCE: NATIONAL SCIENCE FOUNDATION AND NATIONAL CENTER FOR EDUCATION STATISTICS

part-time graduate enrollment in all fields down nearly 20 percent between 1975 and 1976. This turnaround at the graduate level also affected the science and engineering component—with a severe drop in the growth rate. Sharing with us your similar experience at your institution would be most helpful to NSF in its monitoring of the scientific manpower supply.

CHART 4. PART-TIME GRADUATE SCIENCE ENROLLMENT IN DOCTORATE-GRANTING INSTUTUTIONS BY FIELD: 1971 AND 1976



SOURCE: NATIONAL SCIENCE FOUNDATION

The shift in scientific emphasis is shown on Chart 4. In 1971, a heavy enrollment of engineering graduate students on a part-time basis was evident; by 1976 there was a shift to the life and social sciences. As industrial support of engineering students phased out, they apparently shifted to other fields, and many did so at their own expense to improve their academic credentials and ensure a better chance for employment.

This survey's response rates have been traditionally excellent, bordering on 100 percent of the Ph.D.-granting institutions surveyed. To relieve your reporting burden somewhat, future plans call for alternating between a short survey questionnaire one year and a more detailed one the next. This will allow NSF in the off year to provide more in the way of analytical reporting that draws on several sources of material for insight into the dynamics of our scientific manpower resources.

On the table before us there are sets of tabulations from our 1976 survey for you to take with you. Let me know if we can serve your data needs in any way. We have recently published a *Data User Guide* that describes the data tapes for all of our university surveys and I'll be glad to send it to you on request.

Again, I thank you for the opportunity of describing our program and will turn the program over to Dr. Webb for further discussion of his survey results.

Sam C. Webb

In this part of our presentation, we will report data concerning the number and nature of programs for part-time students.

To accommodate these students, a number of schools either provide separate tracks within programs designed for full time students (8.2 percent) or programs designed especially for part-time students (49.8 percent). If we consider all these together, after correcting for overlap, we can see from figure 6 that 53 percent of all schools responding have some kind of special program for part-time students.

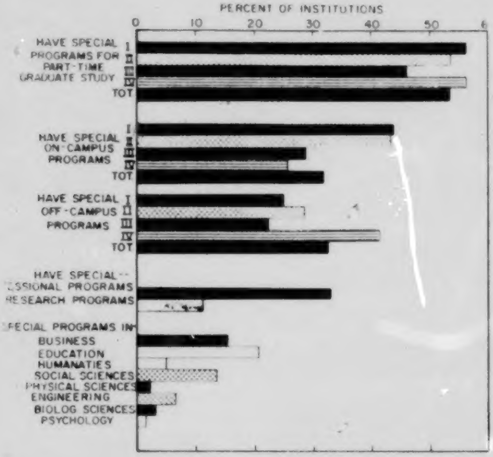


FIGURE 6 SPECIAL PROGRAMS FOR PART-TIME GRADUATE STUDY, FALL 1976

While 32 percent have special on-campus programs, it is clear a greater proportion of private than public institutions have such programs—44 percent *vs* 27 percent.

Thirty-three percent of all institutions have off-campus programs. More public Ph.D.-granting institutions (41.3 percent) provide such programs than do the other three type institutions (approximately 25 percent each.)

While not shown on the chart, approximately 30 percent of all institutions have some kind of restriction on or do not permit part-time study in one or more programs.

As the data in this chart also show, 33 percent of these special programs have a professional orientation, while 11 percent have a research orientation. This fact is further emphasized by the distribution of special programs among disciplines. Thus the largest percentage of programs is in Education (20 percent), the next largest percent is in Business (15 percent), followed by the social sciences with 14 percent. In contrast the percentage is comparatively small in the remaining disciplines—7 percentage in Business (15 percent), followed by the social sciences with 14 percent. 2 percent for physical science, and 1 percent for psychology.

For most all disciplines, there tends to be a larger number of special off-campus than on-campus programs. This is especially true for Business and Education.

Of special note is that some institutions (15.4 percent) report that all or most all programs are designed for part-time study.

As the data in figure 7 show, institutions make a variety of arrangements to accommodate part-time students. Thus 86 percent of all institutions report efforts to provide convenient scheduling. Examples of types of scheduling used include evening and weekend classes (82 percent), weekend short courses (26 percent), short courses meeting daily (34 percent), and to a lesser extent (12 percent) a variety of other arrangements, such as summer programs.

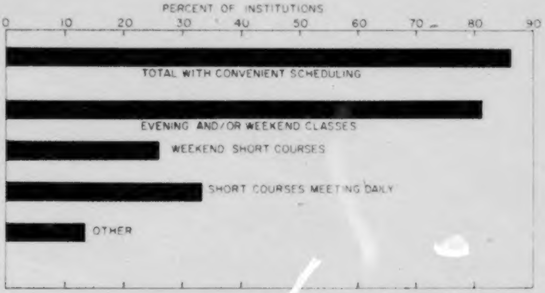


FIG. 7. INSTITUTIONS WHICH MAKE EFFORTS TO SCHEDULE CLASSES AT TIMES CONVENIENT FOR PART-TIME GRADUATE STUDENTS, FALL 1976

While a wide variety of formats and approaches for presenting programs were reported, as you can imagine, the seminar and lecture methods were most frequently mentioned—82 percent.

Inquiries as to whether there are differences in academic or other requirements for part-time students showed that 16 percent of responding institutions reported differences for part-time students in regular programs, while 41 percent of 91 institutions with special programs reported differences. For the most part, however, these differences relate to relaxed residence requirements (28.6 percent) and expectations that part-time students will take a longer time to complete a degree (12.1 percent). However, some differences in academic matters were noted in such areas as admissions standards (18.7 percent), course requirements and comprehensive exams (12.1 percent each) and laboratory requirements (11.0 percent). Few differences in regard to transfer credit were reported (5.5 percent).

As might be expected, the enrollment of part-time students does lead to the employment of additional faculty by at least 40 to 45 percent of institutions enrolling such students. Part-time faculty tend to be added for teaching special part-time programs (58.9 percent *vs* 35.1 percent), while more full-time faculty appear to be added when part-time students are enrolled in regular programs.

Figure 8 relates to the frequency with which special administrative arrangements are made for special tracks and programs for part-time study.

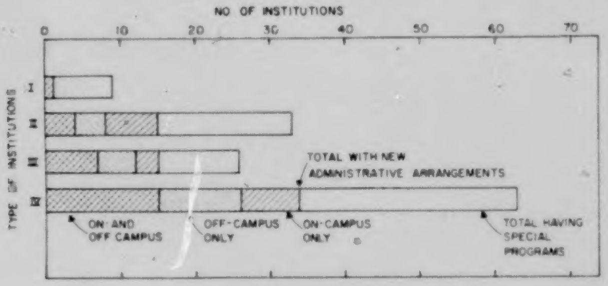


FIG. 8. NUMBER OF INSTITUTIONS HAVING SPECIAL PROGRAMS FOR PART-TIME GRADUATE STUDENTS WHICH HAVE NEW ADMINISTRATION ARRANGEMENTS FOR THOSE PROGRAMS, FALL 1976.

For each type institution the data show the number of institutions that reported special tracks or programs, and the number of these that have new administrative arrangements on campus, off campus and both on and off campus. Here new arrangements are defined to include such items as separate administrative units; the evening college; different application procedures; and on-site registration, fee collection, and counseling.

In all, 142 institutions reported they had special programs or tracks. Of these 50 percent reported some type of new administrative arrangement. The percentage varies somewhat among types of institutions. For example, 63 type IV institutions reported special programs, of which 54 percent had special administrative arrangements. Fifty-eight percent of 26 type III institutions reporting special programs had special arrangements. Forty-three percent of 33 type II institutions reported special arrangements. But only 11 percent, or only one, of nine type I institutions noted special arrangements.

The next graph relates to the use of institutional services and facilities by part-time students.

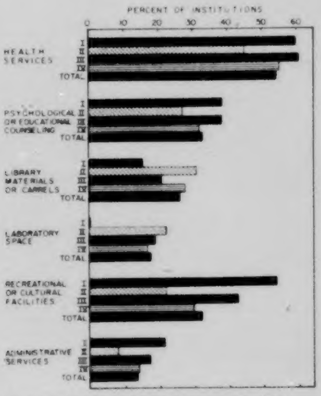


FIG. 9 PERCENT OF INSTITUTIONS REPORTING LIMITED OR NO USE OF SERVICES BY PART-TIME GRADUATE STUDENTS, FALL 1976

As can be seen, 54 percent of all institutions reported limited or no use of available health services by part-time students. Thirty-three percent reported limited or no use of psychological or educational counseling services. (In this connection we also found that very few institutions seem to have counseling or other advisory services specifically for part-time minority students.) Little or no use of library facilities was reported by 26 pecent. Eighteen percent reported no use of laboratory space. Thirty-two percent reported little or no use of recreational or cultural facilities, though as will be seen the percentage reported vary widely among institutional types. Finally, 14 percent reported little or no use of administrative services, such as placement services, consultation in the Dean's office, and so on.

Data related to participation in various types of governance activities, such as faculty and senate committees, graduate student council and departmental committes were quite varied and hence difficult to summarize briefly. In general slightly less than one-half (47 percent) of the reporting institutions indicated full participation was permitted by part-time students. Between 30 to 40 percent reported part-time students are eligible but seldom serve. Seven percent reported they are not permitted to serve on department committees; 13 percent said they were not permitted to serve on the graduate student council; and 28 percent said they are not permitted to serve on faculty or senate committees. Unfortunately we have no data for full-time students with which to compare these percentages.

While time does not permit a full discussion of the data just presented, they do raise a number of questions worthy of consideration. For example,

1) What further (if any) adjustments of academic programs need to be made to accommodate part-time graduate students?
2) Do part-time graduate students, in both on- and off-campus programs, have sufficient access to regular full-time faculty for course work and for advising?
3) Should educational and psychological counseling services be more accessible to part-time graduate students? How?
4) Should part-time graduate students be brought into fuller participation in institutional governance activities? How?
5) Are additional counseling or other services needed for part-time minority or female graduate students?

Nelson T. Horn

This survey attempted to collect not merely statistical information but also to try to gather some impressions concerning institutional attitudes toward the part-time graduate student. We wanted also to try to make some assessments about areas which may be ignored or neglected in our consideration or nonconsideration of the needs, performance, and achievements of part-time students. Finally, we thought it might prove interesting to discover some of the things we do *not* know about our part-time students. As you have already heard, there are large numbers of part-time students in our graduate schools and they represent a wide variety of persons, programs, and arrangements. We should, therefore, pay close attention to them.

One way of getting at the question of institutional attitudes toward the part-time student is to ask how many institutions actively seek to enroll such students. Our results show that 69.5 percent of all schools do actively seek part-time students. Over 87 percent of the master's-granting institutions replied yes to this question.

They represented 37 percent of the respondents. The private doctoral-granting institutions responded *yes*, 60.3 percent; and 63.1 percent of the public-doctorate granting institutions replied *yes*. Interestingly, a larger proportion of the public doctorate-granting institutions report soliciting part-time students although a smaller proportion of their enrollment is part time. It may be that interest in the part-time graduate student is increasing in these schools and that future surveys will reflect this trend.

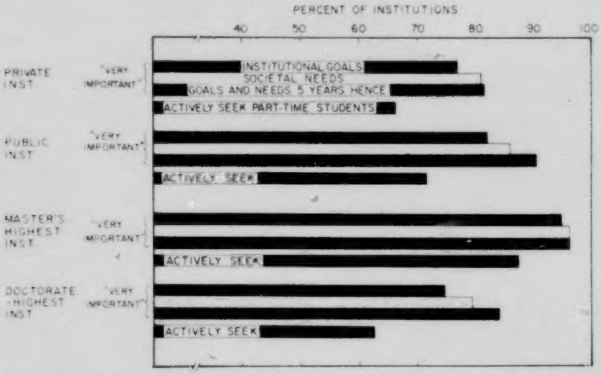


FIG 10. INSTITUTIONS REPORTING THAT PART-TIME GRADUATE STUDENTS ARE "VERY IMPORTANT" IN MEETING PRESENT AND FUTURE INSTITUTIONAL GOALS AND SOCIETAL NEEDS, AND INTITUTIONS REPORTING THAT THEY ACTIVELY SEEK TO ENROLL PART-TIME GRADUATE STUDENTS, FALL 1976

We asked some specific questions about the importance of part-time graduate programs to the institutions. We have prepared a graph which summarizes these data in a slightly different format than that found in the formal report. The measurement scale we used was: very important, not very important, and unimportant. Of course, these questions are somewhat in the patriotism category and we might expect fairly high assertion rates of "very important." But as you can see from Figure 10 there are some differences among the types of institutions. When broken down between public and private institutions, the responses are fairly uniform, although public institutions respond a bit more often in the "not very important" category on the questions of institutional goals and societal needs. It is interesting to note, however, that the public schools consider that in five years the role of the part-time graduate student will be somewhat greater than it is today. The private institutions, on the other hand, show only a slight increase. When comparing master's- and doctorate-granting institutions, the gap in perceived importance is, perhaps not surprisingly, rather greater, there being a 20 percent spread between them on the question of the importance of part-time students to institutional goals. When projecting into the future, the gap between master's- and doctorate-granting institutions begins to narrow quite a bit. The former regard the future part-time student as "very important" at the rate of 96 percent and the latter at the rate of 84 percent.

Another way of trying to learn something about institutional attitudes is to ask whether part-time students are worth bothering about. Thus, we asked about attrition rates, academic achievement, and research quality. Figure 11 displays some of the information we gathered. Most reporting institutions found no appreciable differences in rates of attrition between full- and part-time students. There is a remarkably high agreement that the academic achievement of part-time students is the same as that of full-time students. This may be related to the fact that very few institutions report different standards of admission, thus implying little difference in the quality of part- and full-time students. It should be noted, however,

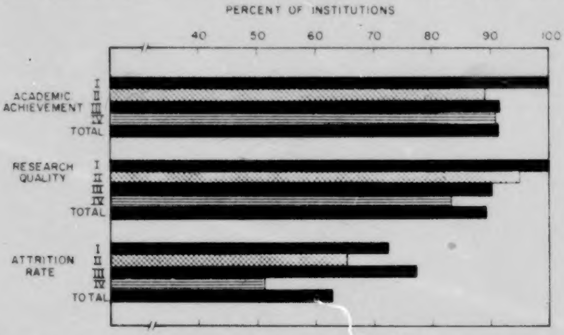


FIG. 11. PERCENT OF INSTITUTIONS REPORTING THAT PART-TIME GRADUATE STUDENTS ARE EQUIVALENT TO FULL-TIME GRADUATE STUDENTS WITH RESPECT TO ACADEMIC ACHIEVEMENT, QUALITY OF RESEARCH PRODUCT, AND ATTRITION RATE, FALL 1976

that several institutions claimed that part-time students are not enrolled in programs requiring research. Those which did suggest an inferior research product among part-time students indicated that it is because such students rarely conduct research or write a thesis; that they do not have enough time to get deeply involved in research activities; and, that they get less supervision than full-time students. Again, the only really noticeable differences in response are between master's- and doctorate-granting institutions on the issue of attrition. These institutions report no appreciable difference between full- and part-time students at the rate of 51.5 percent.

While it appears that in general the part-time student receives most administrative services on a par with full-time students, there is one very large and important area in which they seem not to do very well and that is financial assistance. We asked a detailed question about this matter, and Figure 12 illustrates our findings.

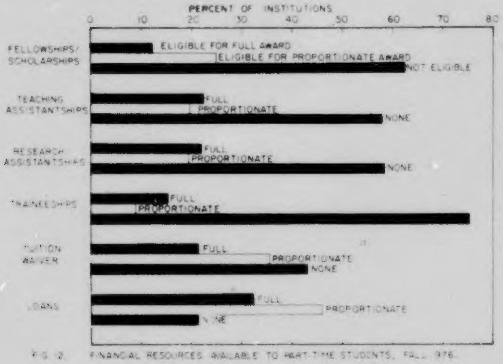


FIG. 12. FINANCIAL RESOURCES AVAILABLE TO PART-TIME STUDENTS, FALL 1976.

Generally speaking, financial assistance is much more readily available to master's-granting institutions than in doctoral-granting institutions. Because of its complexity, the data are shown in composite form on the slide; but you should bear in mind the large differences in eligibility between the master's- and doctorate-granting institutions. In well over 50 percent of doctorate-granting institutions, and up to 84 percent of them, the part-time graduate student is not eligible at all for fellowships or scholarships, teaching assistantships, research assistantships, or traineeships. Tuition waivers are unavailable to such students in 55 percent of public doctorate-granting institutions. Only loans are available—either fully or proportionally to academic load—to part-time students in the majority of the types of schools. Even this form of aid is denied to nearly 22 percent of such students in the total picture. It is easy to see, then, that while nearly 70 percent of all schools actively seek part-time students, they most certainly do not provide comparable financial aid. It may be that as levels of federal support decline without a commensurate increase in other sources, the doctorate-granting institutions and perhaps some of the master's-granting institutions, really are actively seeking more self-supporting students, who of necessity are more often enrolled only part-time.

Our survey tried to assess something of what we don't know about the part-time graduate student. Five of our questions listed as one response alternative, "don't know" or its equivalent. The pattern of these responses reveals some interesting information which we have summarized on the final chart. The master's-granting institutions chose this response at a rate considerably less often than the doctoral-granting institutions. We referred earlier to academic achievement, the quality of research product, and attrition rate. Here we see, however, that significant numbers of graduate deans felt they had to respond "don't know." Over 43 percent of them at doctorate-granting institutions responded thus on the question of attrition rates; well over 38 percent on the question of research quality; and between 26 and 36 percent on the issue of academic achievement.

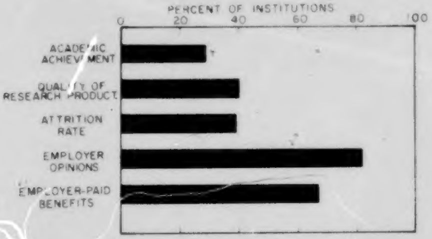


FIG 13 WHAT GRADUATE DEANS DON'T KNOW ABOUT PART-TIME GRADUATE STUDENTS, FALL 1976

We asked if there was feedback from employers concerning the possible effects of graduate study by part-time students on their performance as employees. Eighty-two percent of our respondents said they had no knowledge of possible effects. Sixty-seven percent did not know how many of their part-time students might be receiving educational or job-related benefits from their employers.

Some conclusions from these data are fairly obvious. The importance of part-time students in graduate programs will remain high. A large majority of institutions actively seek the part-time student. An even higher percentage of graduate deans regard part-time students as important in meeting present institutional needs, and their importance in this area is likely to increase in the future. It appears also that part-time students usually perform as well as full-time students, but this conclusion has to be tempered with the observation that many of us simply do not know how they compare.

These data also raise a number of issues which should be of concern to graduate deans. Should a greater proportion of financial aid go to part-time students and what forms should that aid take? Should Federal restrictions on financial aid to part-time graduate students be relaxed and how should this be done? Is there sufficent communication between graduate schools and other segments of society, particularly the work world, when it comes to understanding and providing for the needs of part-time students? Last, and of course a perennnial kind of question for us all, do the deans of graduate schools have enough information on their part-time students and how do we get it?

Thank you for your attention. We would be pleased to hear your comments and questions.

Discussion

Barbara O'Kelly

Several questions arose during the discussion pointing to a need for additional information regarding the education of part-time graduate students.

—There is an obvious need to distinguish between several categories of part-time graduate students (e.g., on-campus *vs.* off-campus, holders of assistantships *vs.* those with outside employment, those making steady progress towards a degree *vs.* intermittent students) and to explore the status and problems associated with each group.

—More study is needed of those institutions with large majorities of part-time graduate students, both to discover the special problems they have and to explore solutions they have developed which may be relevant to other institutions with expanding part-time enrollments.

—The role of professional programs in part-time graduate education also needs further investigation.

Two particular issues were brought up, but unfortunately time constraints did not allow full development of discussion of possible solutions.

—Given the much different age distribution of part-time graduate students, what admissions standards should be used for them? A grade point average of twenty years ago hardly seems relevant. One response was that at least some programs which have relaxed admissions standards for older applicants have found these students to perform very well, perhaps because they are more highly motivated.

—Given the confirmation by the present study that part-time graduate students have limited access to many institutional services and facilities, how can part-time graduate students recoup a fair share of their activity fees? At one institution, these students determined their proportion of the student population, demanded and received that proportion of the fees, and used the money for supportive services such as typists for graduate students.

RESEARCH ADMINISTRATION ISSUES FOR GRADUATE DEANS

Chairman: Eric Rude, *University of Wisconsin-Madison*
John Hitt, *Bradley University*
William Koehler, *Texas Christian University*
Albert Yee, *California State University, Long Beach*

Eric Rude

I am pleased to be chairing this workshop on "Research Administration Issues for Graduate Deans" and to have this opportunity to introduce the panelists to you.

These persons represent an excellent cross section of institutions, experiences, and responsibilities.

Albert Yee, the Graduate Dean at California State University, Long Beach, is the "old hand" having been a dean for five years, and represents a public, state-supported institution.

Bill Koehler, Acting Dean of the Graduate School at Texas Christian University, is "new" to the game having been in office about five months and represents a private university.

John Hitt, Vice President for Academic Affairs at Bradley University, will look at the role of the Graduate Dean in research activities as viewed from "higher up" in the university administration. John previously served as Graduate Dean at Texas Christian University.

Prior to their actual presentations, let me state that we have all agreed that the administration of the programmatic and policy aspects of research activities should—if at all possible—be under the aegis of the graduate school since research impacts so directly and significantly on the quality of graduate education.

John C. Hitt

As we have doubtless reminded colleagues, the general public and ourselves on numerous occasions, the three time-honored missions of the university are teaching, research, and public service. I hope you will indulge me in the platitude that we should judge our organizational framework, our procedures, and our policies according to how they serve these ends. Thus, as a chief academic officer my concern must be that the university work toward the fulfillment of these missions, rather than satisfy my own or anyone else's notion of what would be most congenial to, or would work best for, any particular office or would be most satisfying for any particular point of view of what the university should be. So if it can be shown that in a particular university it is best for research policy to be set and research administration to be done in the business office, the development office, or independently by each of the colleges, schools, or departments, then I would have to support such an arrangement as the best way of meeting that university's over-riding objectives.

Having said the obvious—a habit which I have found increasingly useful as I get farther and farther from the classroom and laboratory—let me now say that having worked in universities where research administration is done to varying degrees in all of the ways I have enumerated above, I have come to favor a strong involvement of the graduate school and a key role for the graduate dean in the development of policies governing research and in the administration of research. In the remarks that follow I shall attempt to elucidate some of the reasons that I have come to this view.

Indeed, we have already heard today some of the key arguments for this position, and I shall not try to recapitulate presentations ably made by Doctors Rude, Yee, and Koehler. But let me mention some of my strongest reasons for arguing that the university (not just the graduate school) seems to benefit most if research is administered through a system in which the graduate dean is heavily involved in a key policy-making role. First, the teaching and public service goals of the university are impacted significantly by its programs of research and advanced study and by the policies which govern them. For this reason, it is important that the graduate dean, as the representative of programs of advanced study, be involved in the formulation and administration of policy governing research. Secondly, there is a clear need for a centrality of view of anything so clearly important as the research activities of the university, and the graduate dean is a central administrator forced by the complexity of his or her role to take a comprehensive view of the university—or that graduate dean will surely perish. Third, the graduate dean is in almost all instances a faculty member doing administrative work. As such, the dean has the educational experience, and (we hope) the temperament to be attuned to the educational impact of programs and their implications for the total enterprise of the university and for its key assets, which are its faculty and students. Without belaboring this point, let me offer one example of its true importance. Any university with even a modicum of research activities funded by outside agencies must develop a policy on released time and a policy on cost sharing.

Who will do this if not the graduate dean or his designee? In many cases the person who does this by default of the graduate dean or the central administration will be a bachelor's degree level accountant who has become a controller or research administrator or a development officer assigned to "foundations, governmental relations and research support." Now in a given instance this may work passably well, but in most cases it will not. In no case is it all likely to lead to a coherent policy which effectively encourages faculty members to seek support for research and graduate study. And if such support is not sought, then the research and advanced study programs of the university will not be as robust or even in most cases as attuned to the perceived needs of society as they might and should be. In thinking about auditors and accountants as policy makers, I am reminded of a definition which someone gave me of an auditor—a soldier who marches bravely onto the battlefield after the battle is fought and shoots the wounded. I really do not want that mentality, or even an auditor of enlightened mentality, defining research and advanced study policy in my institution. I know that in many areas I am heavily dependent on auditors and accountants, but they should not make educational policy for an institution.

Let me return to the point that I made at the outset of these remarks: namely, that any administrative arrangement should be judged by how it aids our work toward university goals—toward the furtherance of teaching, research, and public service. If we view administrative policy the way we view any biological-social system, we conclude that to a large extent its features determine behavioral outcomes. Faculty and students are no less sensitive than we to the contingencies at work to shape their behaviors. If those contingencies do not provide support for the maintenance of vigorous programs of research, should we be surprised if such programs are on our institutional endangered species list? In thinking of my own institution and its needs in the area of research policy and administration, I was moved to consider the following: (1) If I wanted the accounts of a new university-owned corporation to be structured to the full satisfaction of an external auditor, I would hire a good accountant; (2) if I wanted $100,000 to offset an athletic program deficit, I know the development officer I would try to hire; (3) if I want, as I do, a vigorous research program at Bradley, I know to whom I should turn for that. They are not the same people.

The kind of person who would structure a set of policies and procedures so that perceived rewards are suitable for faculty and student efforts is not likely to come from the university's accounting office or from a development office. Again, there are doubtless exceptions to this rule, but I would stick to the generalization offered several times above: one is most likely to find such a person from the ranks of faculty who have gravitated toward administrative assignments. By virtue of the centrality of the graduate school in most universities and the necessary breadth of view which this requires of a graduate dean, he or she is almost uniquely qualified to pursue the goals which I have envisioned above. To be sure, many graduate deans will find it necessary to designate someone other than themselves to perform this role, but it is clearly advantageous that administration of the university's programs of advanced study and research be wed to assure harmony between them. So, in sum, I have reinforced from a slightly different approach the views outlined by Dr. Rude in his opening remarks and by Dr. Yee and Dr. Koehler.

In conclusion, let me offer a few cautionary notes to graduate deans who are attempting to structure their offices and their roles to serve the objectives of the furtherance of good research policies and the enhancement of extramurally funded research on their campuses. My cautions would include the following:

(1) Do not bite off more than you are prepared to chew—some offices "grab" policy enforcement and then find it is something they are just not willing todo. Nothing is more frustrating than someone who insists that it is his or her prerogative to do some vital task and then refuses to do it! So unless you are willing for the graduate school to become an accounting office and to do so cheerfully and well, do not insist that all agency accounts be kept in your office. Insist that they be kept well, but do not fall into the small-minded trap of assuming that nothing can be done well if it is not done by you or someone under your direct control.

(2) Take very seriously your obligation to represent faculty interests to the other members of central administration and your fellow deans and to inform faculty adequately of expectations and obligations which flow the other way.

(3) If you enter the game, learn the techniques of play and the rules. The National Council of University Research Administrators, the CGS, and other organizations to which you can and should belong, if you are in the research policy business, provide many opportunities to learn good techniques of promoting and administering research programs. If you define your role in your institution as being a key member of the research policy administration team, then you must take time to learn this role well. If you do not, you will soon lose

the respect of your colleagues in the administration as well as the faculty and you will expose your university to some very real risks.

(4) Most importantly, make a sincere effort to establish mutually supportive relationships with other deans. Your job is different from theirs and they are at times your competitors. But it is exasperating to all to see programs founder on personal conflicts. Time spent in getting to know your colleagues and in defining for them your view of your role in the furtherance of research can reduce the possibility that contention between you and other deans over questions about who sets policy or who monitors performance can result in proposals missing deadlines or in endless memo wars between several parties concerned in filing a simple report.

(5) Finally, at the risk of being judged guilty of special pleading, I would urge that you give your chief academic officer a reasonable chance to support you. Find opportunities to inform him or her of your programs and their opportunities and possibilities when you are not immediately and directly seeking the chief academic officer's assistance. Perhaps I am overindulging my habit of saying the obvious, but remember your own experiences. None of us likes the time waster who makes repeated appointments to discuss trivalities or the person who never shows up without an emergency which must be dealt with within the next fifteen minutes. In the interstitial spaces between those roles is the person who keeps us adequately, but not exhaustingly informed, who is a knowledgable and independent member of the team, who is a good manager who is seldom (or at least not repeatedly) surprised by predictable developments. Offices do not make decisions, people do. And unfortunately, in most university-level offices decisions are made in situations where the people involved know that their knowledge is incomplete. In such cases trust and respect for the person putting a decision or recommendation before us is of great importance. So help the chief academic officer to reach the conclusion that the graduate dean is an obvious choice for research administration and policy development by letting the person see the issues as you understand them. If at all posssible, give the chief academic officer a chance to form conclusions before there is a real emergency or great pressure for immediate decisions. And remember that a decent chief academic officer will insist upon a systematic (perhaps even real "systems") approach to policy development in pursuit of the basic goals of the university. He or she will insist on seeing how each element of policy works to foster or to impede progress toward the attainment of the university's goals of providing good teaching, research and public service.

William H. Koehler

Any institution involved in graduate programming must be involved in research because research is an integral part of this educational process. Regardless of the type of institution or the level of effort at the institution, I believe there are four main concerns in the area of research administration which should be addressed by the administration of the institution. These are as follows:

- Maintain and further develop an environment which is supportive of research.
- Provide services needed by the faculty to pursue scholarly activity.

- Provide faculty with specific programming to enhance their knowledge of funding opportunities and grants policies and stimulate their interest in extramural funding.
- Protect the university from disallowances resulting from non-compliance with regulations.

One important consideration a graduate dean must confront is the organization of the research administration function within the institution. This is of critical importance because the graduate dean is responsible for graduate education, which is dependent upon research. Although there are numerous models of research administration, TCU's administrative structure has proved quite successful for an institution of our size and level of funding. The organizational structure is as follows:

> Research administration, excluding the accounting function, is the responsibility of the Dean of the Graduate School, who reports to the Vice Chancellor for Academic Affairs, the chief academic officer. The Director of Research Coordination reports to the Dean of the Graduate School. The accounting and auditing function of research administration is a component of the Business Office. There is a close working relationship between the Business Office and the Director of Research Coordination.

The Director of Research Coordination 1) maintains a research administration library and disseminates information concerning potential funding, 2) acts as a consultant to faculty members on proposal preparation (with particular emphasis on the budget preparation), 3) advises the graduate dean on regulations and research policy matters, 4) reviews proposals, 5) is an administrative member of and the dean's representative to various university committees dealing with research issues such as the committee on safeguards of human subjects, university research committee, etc., and 6) supervises research support functions such as research property management and the various technical shops.

The graduate dean is an administrative official 1) authorized to sign for the university for grants; however, contracting authorization is maintained at the vice-chancellor level. The Dean of the Graduate School also has 2) final authority on the level of cost-sharing, 3) administers financial aid (including that from grants and contracts), and has a 4) discretionary account to support research activities.

Assuming the organizational structure is viable for the conduct of research, two paramount concerns must be considered: 1) How does one increase funds available for research and program development; and 2) How does one protect the university from disallowances or adverse litigation? In my opinion, extramural funding will increase if the research administration office adopts a posture of service and if sufficient incentives are made available to the faculty. Any research administration structure which creates a barrier to the submission of proposals and/or the conduct of research will discourage the faculty. The faculty must believe and it must be demonstrated that the Office of Research Administration is interested, will assist, and would welcome the opportunity to help them.

What are some of the services which can be provided to faculty to aid them in their solicitation of extramural funds?

1) Provide current and accurate information involving potential funding sources directed to specific faculty members.

2) Aid in proposal preparation, particularly the budget in draft stage.

3) Expedite proposals through the signature process.

4) Act as a liaison between faculty and the agency to establish initial contacts.

5) Provide travel funds for faculty to meet and discuss funding opportunities with appropriate agency contacts.

6) Act as a liaison between the faculty and the accounting office of the university.

What are some of the incentives which can be used to stimulate the faculty's interest in seeking extramural funds?

1) Summer salary, Graduate and Post-doctoral stipends, equipment, etc., all of which are items of allowable cost from grants or contracts.

2) Continuation of "seed money" from the University.

3) Selective use of discretionary funds to productive faculty members.

4) Merit leaves.

5) Return of academic year released-time monies to the unit.

How does an Office of Research Administration protect the University?

1) A person in the academic component of the University must be very familiar with Federal regulations. I think it is important that this person be in the academic component because such a person generally is more in sympathy with the faculty member's needs and can perhaps find ways of interacting with the agency to circumvent apparent obstacles created by regulations.

2) A person must be sure that the committee structures and policies of the University are in compliance with Federal regulations.

In conclusion, let me say that our office consists of a Dean of the Graduate School (and President of the Research Foundation), an Associate Dean of the Graduate School, a Director of Researh Coordination, and four secretaries. During our last fiscal year we submitted proposals totaling $6 million and administered approximately $3 million in extramural funding from Federal, State, and a few private foundations. To date this year, from June 1, 1977, to November 30, 1977, we have submitted 46 proposals requesting a total of $5.1 million. This level of activity is at a University offering a variety of Master's degrees and Ph.D. degrees in chemistry, physics, psychology, mathematics, history and English. The University has schools of Arts and Sciene, Education, Business, Fine Arts, Divinity and undergraduate Nursing.

Albert H. Yee

I surely agree with Eric Rude that the responsibilities of research administration at universities are most appropriately those of the graduate deans and graduate school staff. Concerned as they are with the administration of graduate programs, especially in promoting and maintaining the quality of the university's advanced studies, graduate deans have become the chief administrative force in support of faculty research and scholarship at most prestigious, research institutions. Normally, other central administrative offices have not been as well-constituted to provide the scholastic stimuli of the graduate office. Examination of the typical resources and responsibilities held by the various administrative posts explain why the most common pattern is for a mutually reinforcing union of graduate and research administration.

As institutions established to promote intellectual/creative interchange and knowledge, universities have a tremendous mission to fulfill through their many parts, the foundation of such is the scholar. Schools, academic departments, faculty, staff, and students provide a great mix of interests and aspirations, all seemingly going in their own directions at times. However, assessed across some span of time and against other comparable institutions, universities develop academic standings which raise or lower them intrinsically to their proper level in the hierarchy of scholastic communities. Athletic records and presidents come and go as well as other important reflections of a university do as time passes, but the university's reputation and the academic standing of its departments must be considered vital and central to its *raison d'etre*. Professors and graduate students working together in advanced studies, their pursuit of new thought and learning through research, and the publication and other scholarly/artistic works and activities of the faculty provide the basic elements determining the institution's academic prestige. This community of scholars is the mainstay of an institution of higher learning and focus upon it can be lost if someone, usually the graduate dean, does not attempt to sustain it appropriately or is not properly assigned responsibilities and resources to carry out such functions. Therefore, administering graduate degree programs and sponsored research activities fit naturally together.

Their everyday operations bringing them together with graduate students and professors on issues of scholarship and the education of new scholars, graduate deans have the opportunity to participate vitally in the university's mission for long-range fulfillment and prestige. Study of the CGS directory and announcements of openings in the *Chronicle of Higher Education* the last several years indicate a growing trend toward expansion of the graduate dean's authority and responsibilities. It is not unusual to find titles such as "Vice President" or "Vice Chancellor" in place of "Dean" when the position includes responsibilities for the university's research activities. Under pressure to counter the effects of constricting state and private funding, universities have had to depend more heavily on research funds from federal agencies and foundations; all of which create greater competitiveness for such funds and the need for more efficient, insightful administration of a university's research program. It goes without saying that graduate students as well as professors rely on grants and contracts, the latter to carry out research and the former to obtain employment and experience as research assistants and to complete their own projects.

To get the job done, deans of graduate studies and research must have the full support of their president or chancellor. The job is tough enough without contradictory and fuzzy administrative channels of authority, such as might occur between other central administrators and school deans. Let us consider the situation where efficient patterns have not been established, which may be the case in newer institutions or institutions which have been *laissez-faire* toward research and are embarking upon a serious, university-wide program. As an example, I have observed that the task of routinizing the sign-off authority on proposals and acceptance of awards at such institutions can be difficult to streamline, but it must be done.

Researchers and granting agencies need to know who is responsible and obtain information and negotiate without bother, confusion, and red tape. Administrative competition for the scarce resources available to support research must be avoided. It can be a chore to accomplish concise processes, such as reviewing and approving proposals for transmission to funding agencies and negotiating awards, but well worth management study and change. Within the institution, the routing of proposals beyond the project director normally covers the department or institute chair, the school or college dean, and concerned auxiliaries such as the computer center before they reach the graduate dean or whomever else might have the authority of the institution's chief executive to approve proposals in the name of the university. Why more individuals might sign-off at the various levels, often without reading the proposals at all, can only be explained by insecure instincts toward "paper-shuffling" and red tape. The in-house sign-off as just listed is basic and tells the graduate dean that the proposal has departmental and school approval. Granting agencies normally require only one university sign-off on proposals; most universities will have no more than two signatures, one to cover university or academic approval and another possibly to cover fiscal administration, such as by the university's foundation if it handles the award accounts. Anymore obfuscates.

The significant responsibility of the graduate dean to review and approve all proposals transmitted in the name of the university, therefore, speaks naturally for a competent administrator and staff who have a global view of the university and its research resources and insight into the range of research projects and faculty represented in a typical comprehensive university. No one person can be fully acquainted with the sophisticated language and issues of all disciplines, so the graduate office must rely on the repute and credibility of the proposer, the departmental chair, and the school dean to a large extent. However, I can say that few proposals are so technical that one cannot read them for literacy and format. Besides presentation features, proposals should be checked for representations in the name of the institution, binding commitments for employment, space, equipment, cooperative arrangements with other institutions, compliance to federal and state regulations such as affirmative action, human and animal subjects, and of course, the budget. Rubber-stamping proposals can only lead to fiscal and management pitfalls and embarrassments, the dangers of which should cause chief executives to select graduate deans wisely and back them unstintingly.

There is not sufficient time to go beyond the one example of processing proposals and much more can be said on that and other aspects of research administration, such as more can be said on the preparation and processing of research providing editing and other technical services, the advisability of lead time for review, meeting deadlines, responding to requests for proposals (RFP's), annual competitions, and sole-source bids, methods of matching funds when required, methods of record-keeping and reporting, Washington contacts and publications, etc.

Research administration should involve more than the review and processing of proposals and grant/contract awards. Important as it is, such work, which can be somewhat mechanical, should be complemented by an attitude of service and encouragement to stimulate professors' research and creative interests. Graduate deans and their staffs normally are uninvolved with matters such as faculty hiring, tenure, and promotion and are generally thought to be short of resources other than persuasion. Therefore, research administration should identify faculty research interests and experience and develop dialogue with individual professors and research teams through face-to-face and written communications. In time, the graduate dean has a fair idea of what professors are interested in research challenges and opportunities, which are active and what their specialities are. Many professors do not need a grant or contract to carry forth their scholarship and could make do with a grant-in-aid or assistance to cover publication, copying, and travel costs, which graduate deans should have available to provide.

The first priority of most professors is rightfully instruction and working with learners as a teacher. I join more elegant speakers on the view that the best teachers are more often those who are active scholars and lively students themselves. Also, no matter how challenging teaching itself can become, years without complementary interests of the complete scholar, such as pursuing research interests and interchange with one's peers through conference and publications, can bring about a staleness in professors that is tragic and wasteful. One need not bring in a grant or publish a book every other year, staying alive in one's chosen discipline through continuous study and reflection keeps the spirit, if not the content, of teaching fresh and provocative. Senior professors who cling to their doctoral dissertation as the culmination of their life's scholastic efforts would no doubt find it difficult to obtain promotion and tenure in the academy today if their careers had started later. This brings up the special duty of the graduate dean to encourage promising young scholars who may be new faculty members, eager to succeed or graduate students/graduates looking for employment.

Therefore, graduate deans have a great opportunity to make it possible that more professors satisfy their scholarly pursuits. They should feel challenged to work with individual professors and faculty groups to help them find greater fulfillment as scholar-teachers. As far as I am concerned, the essence of a university is the scholar. Everything else, perhaps even students, can be stripped away but a university can exist if the scholar remained, perhaps two, three, . . .

PROBING THE MASTER'S DEGREE

Chairman: Eugene B. Piedmont, *University of Massachusetts-Amherst*
Carolyn H. Hargrave, *Louisiana State University*
Etta S. Onat, *Yale University*
Louis G. Pecek, *John Carroll University*
Carl J. Schneider, *Montclair State College*

Eugene B. Piedmont

Something must be wrong with the master's degree, or at least the people who put together meetings of this sort think so. The topic keeps coming up, with predictable regularity, wherever the faithful are gathered—nationally, regionally, or by discipline. It is dragged out, thrashed moderately (but not usually thoroughly), and then returned to its "business as usual" status. The fact that we seem unwilling to desist from this exercise suggests that something is wrong indeed. Simultaneously, the fact that we have yet come to any definitive, operable conclusions suggests that our approaches have been superficial and lacking in precision, insight, or resolve.

The tendency has been to criticize master's degrees essentially for their shortcomings to *quality*. And, since quality is revered by academics as a goal ever to be pursued but never fully to be acquired—("there's always more where it comes from")—such discussions tend more to frustrate then illuminate. To say that master's degrees lack quality is like a physician diagnosing dermatitis; it's a symptomatic surface irritation giving little clue of the process or juices gone astray underneath.

So, for the next few minutes, let's make a serious attempt to "probe it," as our workshop title suggests. It lays before us, blob like. Rather than merely *describe* it (as accusations of imperfect quality customarily do), let's poke at it a bit. Is it a sleeping dog that we really ought better to let lie? Or, worse yet, is it a dead duck that no amount of prodding can arouse? The poker assigned us by CGS is the question, "What ought to be studied about the master's degree?" What a remarkably impertinent question! It denies us the comfort of a facile description.

Each of the panelists—who represent divergent academic environments—will briefly discuss the assigned question (what should be studied about the master's degrees) from only one or two points of view. Then we will invite you to add your own suggestions and help us sharpen ours. An immediate result, hopefully, will be that subsequent panels or workshops in this field will address *specific* problems about the master's degrees rather than resurrect the truism that its quality ought to be improved.

Let me start the process by mentioning some of the more obvious problems, with no claim to exhaustiveness and without going into detail for any. These are not necessarily mutually exclusive:

1. Do we still need master's degrees at all? If so, where are they needed most; where least?

   In doctoral programs (i.e., where the master's degree is not terminal), why bother with it at all?

2. What is the *intellectual/educational* value of the master's today?

   What is its *vocational* value?
3. What kinds of "educational experiences" should students have as part of master's degree programs?

   (For example, what is the optimal proportion of course work to non-courses; what is the best amount and type of research exposure; should there be a mini-dissertation or a mere term paper, or none; should there be "little comps" or no exam at all at the end?)
4. *How* should the Master's degree be certified?

   That is, what is the *level* of competence/achievement that ought to be required, quite apart from the *areas* of competence/experience?

   Should these levels differ if the master's degree is terminal for a given student, or terminal to the field, or terminal to that institution's degree authority?
5. What should be the standards for master's degrees in fields where there is a doctorate?

   Should this vary if the master's-granting institution does *not* award the doctorate, even though others do?

   Apply the same set of questions to fields/programs without the doctorate.
6. What should be the difference, if any, in requirements for arts and sciences master's versus *professional* master's degrees?
7. Should the standards and/or requirements for a master's "in passing" differ from that for terminal students (or terminal degrees)? How?
8. What should be the *qualifications* for faculty teaching in master's programs?
9. Should we resist the apparent proliferation of degree *designations* (i.e., M.A., M.S., M something else)?
10. What should be the difference between the master's degree and other "intermediate certificates" (e.g., CAGS, "ABD," M.Phil., Specialist, Certificates, D.A., etc.)?
11. What should be the relationship/interaction between master's programs and continuing education/outreach/and in-service student/clientele *demand* (both as source of funding and clientele)?
12. Is there a cycle between "easy master's degrees" and "credentialism."

    If so, should we try to break into it? How?
13. Should we admit candidates to master's degree programs if they have not earned and received a bachelors in the same field?

    (And what do we mean by "equivalent/in lieu of" in such cases?)
14. Should we resist non-academic based master's degrees (e.g., A.D. Little, Massachusetts General Hospital, etc.)? If so, on what grounds? (What can we do better that they can't?)
15. If academically based master's degrees do not have different requirements/standards than "external degree programs, how can we resist them (or control them, or influence them)?

I think that is enough questions to illustrate the point and this panel's task. Although each of the questions mentioned has obvious quality implications, each has sufficient specificity to be dealt with, hopefully, and to influence some aspect of quality. Now that *program reviews* of graduate programs (though mainly doctoral level) have been generally accepted and are being widely used, it seems embarrassing (at best) and politically naive (at worst) for us, in academics, to continue to ignore the master's degree—all the while acknowledging that "something is wrong with it." We should not wait to hear the diagnosis from outside the academy, lest the definition of and prescription for a cure also be written from another locale.

Carolyn H. Hargrave

Since our charge excludes consideration of matters related to assessing the quality of master's degree programs, I will concentrate on three rather mundane topics related to the master's degree. Mundane topics, but not to be dismissed, for each can have a very important impact on the quality of some kinds of master's programs.

Establishment and Administration of Interdisciplinary and Interdepartmental Master's Degrees

Despite recurring complaints about the varied types of master's degrees and the uncertainties about the meaning of some of them as offered by different institutions, I think we have come to live with the current situation. We can speak with some clarity about the differences in professional master's degrees and the traditional M.A. and M.S. Not so settled, however, is the meaning of the new, proliferating interdisciplinary degree that involves several fields and often several university departments. We need more certainty and more standards in this area.

An initial problem is whether certain interdisciplinary degree programs ought to be established at all. At an institution such as LSU which offers master's degrees in 74 fields involving 58 departments, questions which must be asked include: whether the "new" program is really new; whether it provides for a course of study that could be pursued in an existing master's program; whether the breadth of the program might sacrifice depth; whether the proposed program accomplishes the objective set forth in the CGS statement on *"The Master's Degree"* interdisciplinary programs "should consist of a coherent pattern of courses."

A second problem involves administration of the interdisciplinary program. In the large Ph.D.-granting institutions, the emphasis on the doctorate can lead to the faculty focusing very little effort and attention on the M.A. or M.S. student in the field. In such a situation, the dangers of neglect for the student in the interdisciplinary master's program is even greater, for the faculty will have only partial responsibility for the interdisciplinary program. Since the interdisciplinary program without a clear departmental home must be tended by the entire faculty teaching in the program, it is critical that a structure be provided for the faculty in the program to exercise continuing, meaningful authority over the program.

I think it would be worthwhile for a study to be conducted of interdisciplinary master's programs, focusing on how more certainty and clearer standards can be achieved and how best to administer them.

Institutional Cooperation in Graduate Degree Programs

Institutional cooperation in awarding of graduate degrees is increasing. Costs are forcing the development of some of these arrangements. State institutions are often being required to do so by coordinating boards. Frequently, both state and private institutions are involved. The Louisiana Board of Regents, after a study of duplicated doctoral programs in institutions within the state, instructed institutions to cooperate in several programs. The problems, of course, are how and on what level this cooperation is to occur.

I wish to share with you one example of a new cooperative program that affects the master's degree program in the field. I refer to the consortium that exists with LSU and four other state universities in the field of psychology. The program resulted not from a Board of Regents recommendation but from realization by the academic psychologists that only one strong Ph.D. in psychology was feasible in the state. LSU offered the only Ph.D. degree, but the four other state universities offered graduate training in psychology. What has been agreed upon is that any student enrolled full time in a master's program in psychology at one of the four regional institutions is eligible to become a "consortium student" in order to take the LSU Ph.D. qualifying examination and participate in summer programs at LSU. Upon satisfying the qualifying exam requirement, the consortium student is recommended to the LSU Graduate School as qualified for doctoral study. The student will then spend one year of residence on the LSU campus and may return to the master's institution to complete doctorate requirements. Qualified faculty members at all consortium institutions participate in administration of exams and may be appointed as affiliate members of the LSU graduate faculty in order to supervise the research of doctoral students.

The important point is that a regional institution without the Ph.D. in psychology can now offer students who want it a meaningful entree into a good Ph.D. program. The consortium program allows the faculty of those schools to be in contact with ongoing research efforts and current developments. At the same time, it allows LSU to concentrate more on advanced seminars and on research, with less need to cover basic coursework. This is just one cooperative program I am aware of—there must be many others. I think it would be helpful for a study to be conducted of successful cooperative ventures in the awarding of graduate degrees with the aim of providing guidelines as to how effective cooperation can best be achieved.

A Market Survey (Or What Should A Master's Degree Be?)

In thinking about what a master's degree should be and what should be studied, we usually talk to other graduate deans and faculty. Absent from most institutional planning about master's degree programs is the views of the employers who will be hiring the degree holders. Their views are especially important when one tends to think of the traditional M.A. or M.S. as something other than a step toward the doctorate.

In addition to providing valuable insight into what employers expect of M.A. or M.S. graduates and what knowledge and skills they anticipate them having, a survey of employers could also be helpful in assisting in the identification of those areas in which the master's degree should be considered the highest degree appropriate to the field. In addition, a survey of college and university administrators might well assist in identifying the levels of college teaching in which a good master's degree program might accomplish what the Doctor of Arts has attempted to accomplish.

Etta S. Onat

When Sandy Elberg invited me to serve on the CGS Standing Committee on the Master's Degree, I suspect it may have been to educate me in "the way of the world." For my academic experience—as a student, as a teacher, and as an administrator—has been entirely within the relatively small, research-oriented graduate school of arts and sciences, where the only post-baccalaureate degrees awarded are the traditional master's degrees in the arts and sciences and the Doctor of Philosophy. What I have since learned has been instructive always and astonishing sometimes.

At any rate, I should emphasize that my remarks this morning are from the perspective of the private, Ph.D.-oriented institution such as the Graduate School of Yale University. These remarks, further, focus not on what should, in my view, be done about the master's degree, but rather on what has happened to this degree at my institution in the past decade or so. For what I want to share mainly with you today is Yale's experience—a provocative one, I think—with the degree of Master of Philosophy, first offered in 1968, and, as a result, with the traditional Master of Arts and Master of Science.

The Graduate School, first organized in 1847 as the Department of Philosophy and the Arts, is one of the eleven schools in Yale University offering post-baccalaureate study. It is the only one offering instruction in the liberal arts, and the only one to award the Ph.D. degree. In fact, since the award in 1861 of the first three Ph.D.'s this side of the Atlantic, the Yale Graduate School has devoted itself almost exclusively to the training of Ph.D. students. Currently there are about two thousand students in residence, of whom all but 68 are studying full time.

Students who seek a master's degree as a terminal degree are admitted only in the several areas of international studies (international and foreign economic administration, international relations, East Asian studies, and Russian and East European studies), in Afro-American studies, engineering and applied science, and statistics. The master's degree as a terminal degree may also be earned jointly with a bachelor's degree by students enrolled in Yale College or with the J.D. degree by students enrolled in the Yale law school. The numbers of students enrolled in these terminal master's programs are small, generally less than one hundred.

Except for these few clearly specified terminal master's degree programs (most of which, incidentally, have different, more stringent requirements from the master's degrees taken "in course"), the graduate school admits only students who intend to proceed to the Ph.D. degree. The degrees of Master of Arts and Master of Science, if they are offered at all, are in most departments awarded upon satisfactory completion of the first year of study to students on the way to the Ph.D. degree or to students who choose not or are not permitted to continue to the Ph.D. degree. The requirements for these degrees thus differ not only from division to division, but also often from department to department.

As we all well know, it has long been claimed that the master's degree has lost value and prestige, and that it must be rehabilitated if it is to have meaning. Perhaps it would be more accurate to say that the traditional Master of Arts and Master of

Science have lost their value as credentials for college teaching. Surely, the more than 300,000 persons who each year receive a master's degree of one kind or another must find it of some worth, and hopefully of some educational value.

But I digress; and already this is, to quote Chaucer's *Pardoner*, "a long preamble of a tale." Let me now get on with Yale's effort to rehabilitate the master's degree.

In the early 1960's the graduate schools of this country, you will recall, were under attack for failing to meet the need for able college teachers. The traditional Ph.D. programs, with their emphasis on research (which all too often took too long to complete), were criticized for training specialists with neither a concern nor a flair for college teaching. At the same time, the traditional master's degree in the arts and sciences had, for a variety of reasons well known to all of us, lost much of its distinct meaning and prestige, and hence whatever value it had had as a credential for college and university teaching. There were many demands that the leading graduate schools rehabilitate the master's degree or establish a new degree with less emphasis on research.

The proposals for reform were numerous and varied, but one of the most frequent was for a Doctor's degree for teachers. (The practical argument for a new doctoral degree for teachers was that under the rules governing promotion and salary in many state educational systems a doctoral degree is "worth" more than a master's.) Yale, along with other major universities, resisted such proposals for proliferating doctoral degrees and above all for establishing a doctoral degree without a major dissertation requirement. Instead it chose the other route, rehabilitation of the master's degree; and in the spring of 1966 the Graduate School established a new degree, the Master of Philosophy, beginning with students entering in the fall of 1968.

It is important to note that the M.Phil. is a new degree, not a new degree program. Like the traditional master's degree in the arts and sciences, it is a degree "taken in course," awarded to Ph.D. students who have completed all requirements except the dissertation. Although there is a minimum residence requirement of one year of full-time study, the total requirements for the degree (generally one or two years of coursework, one or more foreign languages, and a written and/or oral General Examination) as was recognized from the beginning normally take two or even three years to complete.

But not all students complete the Ph.D., some because they find they lack the motivation or distinctive ability needed to plan and finish a major research project; others because they discover that their true interests and talents lie in teaching. For these persons who combine the achievement represented by the degree with commitment to and skill in the art of teaching, the M.Phil. seemed the ideal degree.

At the same time, the Master of Arts and Master of Science degrees were discontinued, except in the few clearly terminal master's programs.

Thus Yale attempted to give the master's program real substance and the degree a recognized respectability. It was hoped that by making the master's degree "a Ph.D. without the tail feathers," one certifying the breadth of knowledge rather than a high degree of specialization, it would become an acceptable badge for college teachers, and that the universities would as a result adopt it.

We do not know how the terminal M.Phil.'s have fared in the academic market. I venture to guess that not many have been successful either in getting a ladder position or, if they were, in being promoted to tenure—there are too many newlyminted Ph.D.'s now happy to find a job at institutions which they may have found less attractive in rosier days.

Nor did the M.Phil. really catch hold: academic innovation is not easy. The Doctor of Arts degree, which was adopted by some other graduate schools as an alternative to the Ph.D. for college teachers, has requirements roughly equivalent to those of the M.Phil. It appears to have gained wider acceptance—probably precisely because it has a *doctor* in the degree designation.

It has often been suggested that the master's degree would have more prestige if it were not offered as a "consolation prize" to "failed" Ph.D.'s. Well, as I indicated earlier, Yale did try to do just that when in establishing the M.Phil. we stopped awarding the traditional master's in the arts and sciences. From 1968 to 1972 the M.Phil. was the only master's awarded in the Ph.D. programs. Then, in response to student and faculty demand, the M.A. and M.S. were reluctantly reestablished. The certificate which we issued from 1968 on to students who either were not able or chose not to proceed to the M.Phil. was apparently, not a marketable substitute for the traditional master's—although not many, it seems, agree on either its meaning or its value.

Neither, apparently, is the M.Phil. When the traditional master's was made available to students who had entered the graduate school between 1968 and 1972, many opted to take it. Some thought it worth more on the market than the M.Phil.; others, because it was there for the asking. Degree collecting is becoming increasingly popular: It is not unusual to find students taking both master's degrees at the same commencement (at Yale degrees are awarded only on petition from the students, who often forget or neglect to file the form at the precise time they complete degree requirements); a few even take all three degrees offered by the Graduate School at the same time. For all practical purposes, the Ph.D. should be sufficient.

A brief footnote: There seems to be great concern over the proliferation of master's degree designations. The increase in degree titles does not cause me much concern as long as they are used for specificity and not because the standards of the program are suspect, and thus there is a reluctance to accept it under the umbrella of an existing master's program. A precise designation can be a very valuable symbol for a degree program—with a specific purpose—such, for example as the Master of Arts in Teaching. It is not the variation in titles that should concern us, in my opinion, but the variation in *standards*, that is, in requirements. Although the quality of the Ph.D. may vary among institutions, its requirements are fairly standardized. Can we say the same for the master's degree? I think not.

Louis G. Pecek

The assignment was intriguing. Discuss the problem having to do with the master's degree that most needs attention, but not quality—for everyone wants quality. The assignment is much like being told to see what there is to see in New Orleans, while making sure to stay out of the French Quarter.

The major problem—the one that like the poor is always with us—is the problem of *why*. It is the problem we need CGS help with. And even with apparent CGS solidarity in the form of the policy statement on *The Master's Degree*, we still tangle with the questions of *what is it* and *why is it*.

There was a time when the master's degree marked a period of study in which one was introduced to the mysteries and methods of research so that he could be well prepared to undertake the further rigors of doctoral study. I suggest that many—perhaps even the greater number—of our heavily tenured faculties still think that way. But these days universities realize that doctoral work needs to be cut back, for reasons all to painfully known. So what is the master's degree for? If not preparatory, then terminal? And if terminal, then what should the degree do and be for its holder?

While the traditional concept of the degree hangs on—and I feel most of us would say it should, we face new demands. Some of these demands are those of our students who have come up with new needs. Some of the demands are those of our own finances which require a concerted grubbing for new student populations.

What about student needs? Why is it, I wonder, that students think any courses they take after graduating from college should carry graduate credit, or worse yet, lead to a master's degree? Let me ask the question another way, this time in terms of our search for new student populations. Why is it that we so often agree with students that courses—any courses—they take beyond the bachelor's level can carry graduate credit? A fairly new concept among master's degrees is an offering going under various names—liberal studies is one of them—whereby a major outside the humanities, presumably established in his presumably scientific career, can now come back to school, study the humanities he "never had time for" in college, and emerge from graduate school with a degree, a master's degree. Is this really a master's degree? Ask the research oriented faculty, the faculty who see master's study as advanced study of a field in which basic undergraduate study has prepared the student for a higher level of experience. Let us carry it just a step further. Imagine the neophyte in the same course with the prepared major: what happens to the student? Does he fail for lack of background? Or does the course change, seeking the common denominator of the class? Or is every course some form of independent study? Or what?

The problem compounds when one tries to work students through an interdisciplinary program. Actually I mean inter-departmental, because that is the practical reality. The first assumption we make, usually false, is that the participating departments talk to one another. When only two are involved, some kind of armed truce is possible. But try four. No student will be prepared in his undergraduate work sufficiently to satisfy every participating department, because, of course, only each department's own major is the proper preparation. Which can bring us to the glorious contradiction of undergraduate preparation being just as bad, or just as good, as no preparation. But what has happened to the degree?

The problems I see as greatest are due to today's insistence that the master's degree be utilitary. The questions are: What job can I get? What advancement will it bring? What certificate comes with it? Not, unfortunately: What do I learn from it? What does it teach me? How am I a better intellect, a better person for it? But the biggest problems I see are the same problems we have had from the beginning of master's degrees. Likewise, they are the same problems we will always have, because I believe once the problem goes away, so does our work as educators. What is the degree for? What does it lead to? What and who does it prepare and for what? In short, the problem is *why*?

Carl J. Schneider

We are met to "probe" the master's degree, an interesting assignment that is made more interesting because of the fact that it has so many variations, is unique in so many respects, and is sought after for so many different reasons. For those of us whose work is at institutions which offer no advanced degree beyond the master's, discussions of master's degrees still tend to have an air of unreality. The difficulties arise from the fact that the typical discourse treats the master's as being by definition in the continuum from baccalaureate to doctorate, not as a degree with its own integrity and purpose. The frame of reference is typically the doctoral model—scholarship, research, the pushing back of the frontiers of knowledge and the discovery of new formulations of "truth." There are those who argue that master's programs that do not fit this model are not, somehow, properly designated as "graduate" work. To so argue, however, is to limit unduly the definition of graduate education.

The issue comes to a head when we contemplate the apparently uncontrollable proliferation of master's degree nomenclature and hear arguments over professionalization *cum* vocational training versus graduate level education that is somehow more legitimate because it is rooted in the liberal arts and sciences. For a number of reasons I believe that much (not all) of this argument is phoney. I should be surprised to learn of Ph.D. students or their professors who do not consider themselves to be preparing or prepared for a profession or a vocation.

As a point of departure let us consider the Council of Graduate School's expressed concern to halt the proliferation of master's degree titles. It would be nice to reduce the array of titles by the application of commonly understood criteria and definitions. However,this is not immediately likely and I am not certain that it is all that important—an array of degree designations is not necessarily a scandal. I suggest that it is more properly understood as a symptom of a condition that requires our attention. It is higher education's response to a complex technological and economic structure, to expanded welfare and health services, to all the convolutions to which our society is prey. These have produced occupations based on formal advanced education for which the doctorate is inappropriate. Society requires skilled and trained practitioners as well as sophisticated scholars and researchers. We need to develop and sustain graduate work at the master's level that will link the academy with the on-going requirements of society. This demands a high degree of vision and acumen, in addition to a firm grasp of the latest scholarship and research. Emerging social realities must be anticipated and the definable market situation must be understood. In every case, the problem is the articulation between the needs of society and master's degree programs. How is this articulation achieved? How effective is it? Does the array of degree designations accomplish a specific purpose?

The proliferation of master's degrees also represents an urge to experiment, to innovate, to be non-traditional. In 1975 the National Board on Graduate Education stated that "The master's degree offers a locus for experimentation with new degrees and new degree audiences." *(Outlook and Opportunities for Graduate Education).* Conceptually, this is true—how else can colleges and universities adjust their graduate programs to changing societal demands and requirements? The issue is acute at the master's level precisely because the master's degree is not committed to the production of researchers and scholars in liberal arts and science disciplines. In a curious way this makes the establishment of quality master's degree programs more difficult. The end product is less easy to define than is the case with the Ph.D. and the criteria of effectiveness less easy to formulate. We need to know more about attempts at experimentation, at new formulations of content and methodology, at interdisciplinary innovations and combinations. To what extent have they been undertaken? With what effect? Do they serve genuine needs? Do they respond to specialized services and functions?

There are at least two constraints on the development of master's level graduate work that must be appreciated. First is the fact that master's degrees in many instances perform a licensing function; this is related to mandatory continuing education in many professions and/or the considerable pressure to prescribe levels of skills and knowledge for practitioners in their field. The result is that graduate schools are increasingly forced to adjust their programs to standards that have been established externally by professional associations and guilds. To the extent that this occurs, graduate education becomes the captive of bureaucracies outside its control. Second, I wonder about the expansion of professionally oriented programs at the undergraduate level. What is the impact of this development? Are there new problems of articulation between undergraduate and graduate schools? What adjustments must be made in terms of curriculum, requirements for matriculation, the number of credit hours required, etc.?

It is clear from these findings that some people with advanced degrees in the humanities have found very satisfying jobs outside of teaching which draw on skills which have been much enhanced by their graduate training. Though such careers may not be satisfying to all people who pursue doctoral study in the humanities, our research suggests that a significant minority (perhaps 20 percent) of these people can find challenge and opportunity in administrative and management jobs.

If substantial numbers of people with advanced education in the humanities are to make use of that education in managerial careers, they must do so in business for 91.6 percent of all administrative and managerial jobs are in the private sector.

At present, there are barriers to movement from a graduate program in the humanities to a management career in business. Some professors and graduate students are antagonistic toward business. Many more are simply ignorant. For the most part, student interviewees, including those who display enthusiasm for a business career, have not the first notion of what goes on in corporations or of how they might go about seeking jobs as management trainees.

The most serious obstacles, however, are on the side of business. As the academic labor market shrinks, an increasing number of humanities Ph.D.'s and near Ph.D.'s will perforce look for jobs in business. In most concerns, however, they will be viewed as too highly educated to be placed in entry-level jobs but unqualified for higher level jobs and, in any case, doubtful risks on the score of motivation—just seeking havens until teaching jobs turn up. These are understandable attitudes, and they are by no means unjustified. So long as these attitudes remain unchanged, people who elect after graduation from college to pursue a scholarly interest in one of the humanities will find that they have thereby cut themselves off from careers which, more than others, could offer them intellectual challenge and reward their capacity for understanding and dealing sensitively with the needs and wants of other human beings—in short, careers ideally suited for many people who think of themselves as humanists.

In looking at a rank ordering of twelve skills or qualities by three groups; students, alumni in closely related jobs, and alumni in not at all related jobs, we find research techniques and critical thinking at the top as very enhanced, and imagination, leadership ability, and self-confidence near the bottom. Writing ability ranks in the middle for all three groups.

Students put insight, general knowledge, and teaching ability in the top half while both alumni groups ranked perseverance and self-discipline near the top under critical thinking and research techniques. The alumni put enhancement of teaching ability low on the list with students placing teaching just above midpoint.

In sum, the alumni, whether in teaching jobs, corporate management, or sales, agreed on the five qualities which are most enhanced by graduate training; critical thinking, research techinques, perseverance, self-discipline, and writing ability.

The list changes slightly when alumni are asked to indicate which of the twelve qualities are most important to their jobs. They agree on four out of six of the top rankings; critical thinking, self-discipline, writing ability, and insight. Quite strikingly, research techniques, rated as very enhanced by graduate training, were not seen as very important by either alumni in closely related jobs or those in not at all related jobs. Research drops to the bottom half of the list for job importance. This is very interesting because the majority of the respondents in closely related jobs are in college teaching jobs where one might expect a high level of importance to be attached to research techniques.

EMPLOYMENT OPPORTUNITIES FOR PH.D'S IN THE SOCIAL SCIENCE AND HUMANITIES

Chairman: Norman S. Cohn, *Ohio University*
Dorothy Harrison, *New York State Education Department*
Ernest R. May, *Harvard University*

Norman S. Cohn

For many years my view has been that individuals holding the Ph.D. in many fields have the capability to function in a much greater variety of settings than the academic world. One of the difficulties has been to convince prospective employers of the desirability of hiring such individuals for tasks that they might not otherwise have considered and to convince the Ph.D. graduates themselves that taking positions outside of the academic world and outside of the conventional or traditional research mode is not only a respectable move but a desirable one. More efforts need to be made in the direction of articulating the values of such an approach to the Ph.D. graduates and to prospective employers.

This morning our speakers will be addressing themselves, in part, to those questions. They, in fact, have made significant progress. Dr. Dorothy Harrison who is with the New York State Education Department and Dr. Ernest May of the Department of History at Harvard University have been involved in a national project relating to careers for Ph.D.'s in the humanities. The project has been supported by the Mellon Foundation and was initiated in collaboration with Allan Cartter and Lewis Solomon. Following their presentations the floor will be open for comment, questions and general discussion.

Dorothy Harrison

The idea of the academic job crisis as an opportunity is a serious one. I am not using "opportunity" as a euphemism. I think we have some encouraging things to say.

In all our work on the research project we have been looking for leads that would allow us to suggest:

1) How the humanities disciplines might flourish despite a poor academic job market for doctorates, and
2) How these fields might increase their impact on society.

Put another way, we have explored out data for some direction in looking at two questions:

1) What is to become of bright young men and women who get advanced training in the humanities and don't teach? and,
2) What is to be the social function of post-baccalaureate training in the humanities?

Though we cannot supply answers to questions as large and complex as these, we believe our research suggests new patterns that might be developed.

Let me begin by giving you some background. In the 25 year period from 1950-1974, our country produced 57,000 Ph.D.'s in the arts and humanities. The decade of the fifties yielded 11,000; the sixties, 22,500; and the first five years of the seventies, 23,500. Of this group about 10 percent (5,700) found employment outside of college teaching. Our alumni survey reached 30 percent of this group.

The major categories we used for respondents outside of college teaching were:

1) Writers, editors, translators, librarians, archivists, and curators.
2) Administrators, managers, and supervisors, and
3) Specialists in advertising, public relations, personnel, sales, and other business and other professional.

Each person in a non-academic job was matched in our survey by another person of the same sex who was in a college teaching job and had studied the same field at the same institution and graduated the same year as the non-academic.

With this in mind, let me summarize the two major findings from our research that I will discuss:

1) There is significant congruence between the skills and qualities alumni and graduate students describe as being very much enhanced by humanities graduate training and those which alumni identify as being very important to a wide range of jobs. This despite the primarily non-vocational objective reported by all as motivating graduate study in the humanities.
2) Job satisfaction for academic and non-academic positions is determined by the same factors and can be correlated very closely with salary levels. Among the alumni the largest percentage of very satisfied people were in administrative and managerial positions, *not* teaching jobs.

Let us look now at the skills academic and non-academic alumni and students (from our survey of five thousand graduate students presently enrolled in doctoral programs) rated as being very much enhanced by graduate training and important to jobs.

If we juxtapose the student list with the alumni ratings of skills very important to jobs, we see agreement on critical thinking, insight, and writing ability.

From testimony gathered in alumni interviews it is clear that the congruence between graduate training and non-academic occupations is much greater than many people imagine. On the other hand, the connection between graduate study and teaching is described frequently as tenuous and indirect at best. It may well be that the person who goes from graduate school to a job with IBM or the Chase Manhattan Bank or Random House draws more heavily upon skills developed in a doctoral program than does the person who goes to teach world literature in a community college. And the cultural shock is likely to be as great in both cases. The survey rankings bear out both the low rating of the enhancement of teaching abilities and the stress placed on critical thinking, writing ability, perseverance, and self-discipline and the part these qualities have in a variety of occupations.

Though some may argue that melancholia is the natural and proper humor of the scholar/teacher, graduate students almost unanimously perceive college teaching careers to be more exciting, satisfying, and free than any other. In fact the only two job options which more than 50 percent of the student respondents identified as "very attractive" are college or university teaching and academic research. Rated as 3, 4, and 5 are jobs in the communications media, two year college teaching, and government service in one's own field. A weak 6 and 7 are jobs in non-profit agencies and in college or university administration. Only a quarter of the respondents found either of these very attractive.

There is almost no correlation between the jobs students perceive as very attractive and the positions which alumni describe as most satisfying. This is certainly one of the most interesting findings in the study.

We rank ordered by employer the groups that were very satisfied with their current jobs by percentage of respondents. Only two faculty groups appear in the top 10 out of 18 groups:

1) *University faculty* are in 5th place after four year *college* administrators, self-employed businessmen and university and two- year college administrators.
2) *Four-year college faculty* are in 10th place after people in non-profit institutions, government people, communications workers, and other business people. They have a very slight margin over people in service industries and elementary and secondary teachers.

Going back to the rank ordering of student career options, we see,

1) that academic administrative jobs which are rated *1, 3,* and *4,* by alumni for job satisfaction are ranked *7* and *10* for attractiveness.
2) Faculty positions which students place *first* for college or university teaching, *4th* for two year college teaching and *10th* for elementary and secondary are ranked *5, 10,* and *12* respectively in regard to satisfaction.
3) While executive and other business positions are very low in attractiveness they rank *2, 8,* and *9* in satisfaction, all three coming before four year college teaching which is ranked *10th*.
4) Government and non-profit employment is about the same in attractiveness and satisfaction—*8* & *9*.

Clearly the joys of teaching jobs are over-rated by students and the rewards of non-teaching jobs, especially in academic administration, are undervalued.

If we compare the percentage of very satisfied alumni in each of the four major alumni groups in regard to eighteen aspects which affect job satisfaction, we find overwhelmingly that administrators, managers, and supervisors are more likely to be very satisfied with an aspect than any other group. As a matter of fact, for three out of four of the most important aspects, variety, responsibility, and challenge, the administrator group ranks above the other three. They rank first for twelve out of eighteen aspects and last for only two, opportunity for scholarly pursuits and opportunity for leisure.

For the largest group, teachers and researchers, a summary of best and worst rankings for each of the eighteen aspects shows a number 1 rating for opportunity for scholarly purusits and a number 4 rating for twelve out of eighteen other aspects including variety, responsibility, challenge, salary, fringe benefits, policy making power, congenial working relationships, competency of colleagues, etc.

Writers, editors, translators, librarians, archivists and curators are first for the most important aspect, autonomy, and for working conditions and opportunity for leisure. They rank fourth for *job security.*

The last group which includes specialists in advertising, public relations, personnel, sales other business men and professional people, ranks first for fringe benefits and advancement opportunities and last for autonomy, working conditions, and status of position.

As many of you are aware, a national program is underway funded by the National Endowment for the Humanities, the Rockefeller Foundation, the Prudential

Insurance Company, the Pfizer Corporation, the Exxon Education Foundation, and the General Motors Foundation, to open pathways to business and management careers for recent A.B.D.'s and Ph.D.'s in the humanities and related social sciences. With the support and advice of executives from leading corporations we have designed an intensive summer orientation program in New York University's business school which will prepare 40-50 carefully selected candidates for regular jobs in cooperating corporations.

We hope this program will help solve the problem of how the humanities disciplines can flourish despite a poor academic job market and of how the humanities can increase their impact on society.

Ernest May

Professor May noted that an analysis of the Ph.D. graduates of forty universities, twenty of them major producers of Ph.D.'s in the humanities, was made in the fields of History, English, Philosophy, French and Spanish. Five thousand responses were obtained on questionnaires sent to Ph.D. students and particularly centering on those individuals in non-academic positions. A matched sample was obtained for those in academic positions and questionnaires were sent also to departmental chairmen.

He noted that although there has been a slackening of the boom of the 1960's, there is not yet an academic job market crisis. During the next decade it is anticipated that there will be approximately 4,000 academic positions per year. Taking the most optimistic viewpoint, English represents currently about 6.5 percent of the available teaching jobs. This would lead to an expected maximum of 400 teaching jobs per year in all kinds of postsecondary institutions. The field of Philosophy demonstrates an anticipated maximum of 100 teaching jobs per year in postsecondary institutions, with History and Modern Languages somewhere between 100 and 400. It is not likely that any increase in the number of older students will lead to an increase in the number of positions available, since such student would not be likely to evince a significant activity or interest in advanced graduate work.

In the survey, Professor May noted that 90 percent of the respondents thought *they* would get the jobs that would be available; they would be the exceptions to placement in a poor market. Although there will be some decline in Ph.D. production it will not occur to the level that would match the decrease in academic positions.

The majority of the students come to graduate school because of their attraction to the subject rather than because of job orientation. One could conclude that the job market will not have as significant an impact on reducing the number of people available for the number of positions. In fact, the production of Ph.D.'s by the most prestigious institutions alone will surpass the availability of academic jobs. For example, all jobs in History could be filled by the graduates from the six top universities in the field.

Sixth Plenary Session

Friday, December 2, 1977, 10:45 a.m.-12:00 noon

Chairman: Donald J. White, *Boston College*
Guest Speaker: Ernest L. Boyer *U.S. Commissioner of Education*
Recorder: Eastman N. Hatch, *Utah State University*

Donald J. White

Our distinguished guest speaker this morning, Dr. Ernest L. Boyer, United States Commissioner of Education, is a reflective person and a man of action. He has been described by Barbara Radloff in the *New York Times* in these words: "He's got religion about education—and he knows how to make his feelings contagious." I might add that, in moving from Chancellor of the world's largest University system to the post of United States Commissioner of Education "Ernie" Boyer took a $20,000 a year pay cut because, in his own words, he viewed the Commissioner's post as "the single most important place for addressing educational issues in the nation today."

Dr. Boyer has an educational philosophy. In an article, "Educating for Survival," in *Change*, March, 1977, Dr. Boyer wrote of the need to "expose our people educationally to their common bonds." He believes that "Education for independence is not enough . . . education for interdependence is just as vital."

"Democracy," Dr. Boyer has written, "requires a tension between self and society and yet today the broadening social vision seems in full retreat. We are indeed in a race for social survival and some return to a core of learning is crucial."

It is little wonder that Dr. Boyer has earned a reputation as a statesman as well as innovator because he looks at educational issues in a social context.

We are particularly fortunate to have him here today to present his views on "Education and Excellence" and to discuss them with us. I am pleased to present Dr. Ernest L. Boyer, United States Commissioner of Education.

EDUCATION AND EXCELLENCE

Ernest L. Boyer

I wish to thank you for inviting me to participate in this important convocation. The Council of Graduate Schools in the United States is one of higher education's most distinguished organizations.

Graduate education performs an absolutely essential service for this Nation:

- It is the well-spring of basic and applied research.
- It inspires scholarship.
- It prepares teachers for our finest institutions.

Advanced training and research are central not only to the concept of a university but, also, to the very future of this great democracy.

And yet--I hardly need remind this audience that graduate education in this country now confronts a crisis.

Just two years ago the National Board on Graduate Education put the issue rather bluntly:

"The mood within the graduate community during the last five years has," it said, "been one of distress, frustration and uncertainty."

And these attitudes, the report continued,

> "Can paralyze thought and action if new ideas . . . are not forthcoming."

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Ironically, graduate education has, from one perspective, become a victim of its own success.

Consider, for example, the explosive decade of the 60's.

-New graduate programs sprang up almost everywhere.

-New facilities for research and teaching were erected almost overnight.

-Foundation grants skyrocketed, and federal grants came pouring in.

Between 1960 and 1970, for example, total federal support for higher education rose 300 percent to more than $4 billion, and research and development allocations more than tripled—moving from approximately $400 million in 1960 to nearly $1.5 billion in 1970.

And, as you well know, a significant portion of that funding went to graduate education.

But suddenly—almost overnight, it seems—many of us hit hard times.

- School enrollments began a downward drift.
- The demands of the labor market abruptly altered, and employment opportunities for graduates decreased.

It has been predicted, for example, that as few as 3,000 to 5,000 new Ph.D.'s—that, is possibly fewer than one in ten—may find appropriate faculty employment during the 1980's.

The picture is sobering, to select a cautious understatement. And yet—for reasons not altogether clear to me—these sobering circumstances do not seem to be reflected in our day-to-day decisions.

A recent survey of 465 graduate schools by your organization revealed that during the past five years–

- Three new graduate programs were established for every one that was discontinued.
- 1,560 new master's-degree programs were established, and 449 were terminated.
- 408 new doctoral-degree programs were started.
- 109 were discontinued.
- The social sciences and education accounted for 42 percent of the new programs.
- And, although 25 doctoral programs in the humanities were abandoned, 30 new ones were introduced.

In short, our consolidation to expansion ratio still remains at approximately 2:1.

II

Now—here I must insert a special note of caution. Graduate education policy must not be driven blindly by statistics. There is still the fundamental issue of student preference, and there is still the fundamental issue of scholarship for its own sake and for the sake of future generations. We must, in short, vigorously reject the pernicious notion that higher education should be driven by mere manpower speculations or submit to the dreary blueprint of a bureaucratic five-year plan.

It is, however, not bureaucratic to face reality. And the hard reality seems to say that graduate education, if it cares at all about its fiscal and intellectual health, cannot continue to expand without constraint.

What, then, are we to do to retain vitality and excellence—and a sense of equilibrium among the disciplines?

Let me set forth three rather familiar propositions: First, I am convinced every graduate school should introduce a tough-minded self-assessment program to determine just what it should and should not do—and to match its programs more carefully to its mission.

Internal evaluations can, of course, be victimized by vested interest, and evaluation can easily be subverted if there is fear that programs may be discontinued.

Even so, I am convinced that quality assessment must be undertaken by every higher learning institution—not only because it is the prudent thing to do, but, also, to head off incursions from outside agencies.

Let me introduce one case study with which I am familiar. During the 1960's the State University of New York at Binghamton grew like Topsy.

- In 1961 Binghamton offered two graduate courses—in English and mathematics.
- By 1964 it was offering master's degrees in 18 separate fields.
- In 1965 the campus introduced its first Ph.D. programs.
- By 1970—just five years later—16 departments were granting doctorates.
- And by 1976 SUNY-Binghamton had 17 doctoral and 45 master's degree programs!

But the university also faced new realities, and a campus-wide program evaluation was introduced. The mission of the campus was clarified, and the faculty declared quite straightforwardly that—

> "Instead of a university center offering a full array of doctoral and master's programs, (SUNY-Binghamton) will become a *selective* university concentrating its . . . resources on a core of high quality doctoral and master's programs."

Programs are now being phased out or consolidated—and others will be strengthened.

I am not suggesting this as a model. I am only suggesting that, if graduate education is to retain its excellence, programs must be reviewed and priorities must be set, not only as regards future growth but in terms of past decisions too.

III

And now let me make one other point: I am convinced our graduate schools must become more flexible and serve new clienteles—while still promoting excellence.

For example, the final report of the National Board on Graduate Education proposed that—

> "Course sequences, residence regulations, and other institutional requirements should be adapted to meet the needs of students with family responsibilities, adult learners, professionals, those forced to pursue their studies intermittently . . ."

This proposal seems obvious, of course, and yet it is still the fact that many able students are excluded because of the barriers we ourselves erect.

While speaking of new directions I also would like to comment briefly on the status of women and minorities.

The number of Ph.D.'s awarded women increased from 1,250 in 1961 to nearly 7,700 in 1976. Women are now receiving 23 percent of all doctorates compared with 12 percent some fifteen years ago. This trend is in the right direction, but progress still is insufficient and the track record is quite spotty.

In the physical sciences, for example, women hold only 5.3 percent of the doctoral degrees. In engineering the figure is less than 1 percent.

Minorities have confronted even greater barriers. The Henry Report said that—

> "While minority men and women comprise more than 15 percent of the total U.S. population, they at the same time represent less than 6 percent of all graduate students.
>
> "Blacks, Chicanos and Puerto Ricans, and American Indians earned less than 5 percent of total doctorates awarded in 1973-74.
>
> "Moreover, minority persons are unevenly distributed in disciplinary fields of study; for example, blacks received less than 2 percent of all doctorates conferred in the natural science fields but earned more than 8 percent in education in 1973-74."

I believe it is absolutely urgent for graduate schools to push aggressively for increased enrollment of minorities and women—not just because it makes good sense, but because it is right.

IV

One further point still more complicated. I am also convinced the time has come to focus on new disciplines and to introduce curriculum related to the changing world.

Dave Breneman of the Brookings Institution touched on this urgent matter when he said that it is essential for universities to:

> ". . . set new directions for large numbers of programs that were brought into existence by the excesses of the 1960's, and that are now stranded in an educational no-man's-land."

The truth is that, while graduate enrollment in some traditional fields has leveled off or even dipped, growth in others has been dramatic.

- At Johns Hopkin University, for example, enrollment in the School of Hygiene and Public Health—with its emphasis on preventive medicine—has increased some 20 to 30 percent in the last five years.
- In that university's environment engineering Ph.D. program registration has almost doubled.
- And a new doctoral program in anthropology, which began in 1974 with one student, now has 20.
- New combinations of traditional academic disciplines are required.

But I also am concerned that imaginative new fields of study and research may be required—new disciplines that relate to the earth's emerging new agenda.

The harsh truth is that the human race continues to expand at a rate of 200,000 people every day.

- That is 73 million more people every year.
- And every day more than 800 million people face gnawing hunger, living literally from hand to mouth.
- Tensions over resources grow more acute, and the quality of our environment is threatened.

The questions of the future are beginning to be formulated.

- Where will we get our food, and how can it be appropriately distributed?
- What about our energy supply, and how can it be equitably shared?
- How can we reduce the poisons in the atmosphere?
- Can we have a proper balance between population and the life-support system of this planet Earth?
- And how can we live together, with civility, in a climate of constraint?

These are a few of the transcendent issues which today's young people—and all of us—must begin to think about and talk about with great care, and they somehow need to be addressed with still more urgency in our curriculum and in our research.

Earlier this year, United Nations official Robert Muller noted that:

> "A child born today into a world of four billion people will, if he attains age 60, be sharing the earth with three times as many human beings."

In a monograph published by the World Affairs Council of Philadelphia, Muller went on to say that:

> "A child born today . . . will be both an actor and a beneficiary or a victim in a total world fabric, and he may rightly ask: "Why was I not warned? Why was I not better educated? Why did my teachers not tell me about these problems and indicate my behavior as a member of an interdependent human race?"

I am convinced that increasingly we do have an obligation to educate, not just about the past and present but about the future, too, and this calls for—I suspect—new courses and new fields of study.

V

And now I would like to say a word or two about how Washington can help sustain this essential enterprise.

First, I want you to know that excellence in education is an absolute top priority in the Administration and that scholarly research is central to that vision.

President Carter's recent statement at a ceremony honoring the Medal of Science winners made this point without equivocation—

> ". . . We want to make sure," said the President, "that the climate for research and development in our country is enhanced, with my own imprimatur of approval and interest, with a broad-scale exhibition of interest on numerous occasions by the Members of Congress and my own Administration, with publicity accruing to those who have achieved notably in the scientific and engineering field and also in direct budget allocations."

Thus, the President said, he had "directed the Office of Management and Budget to boost . . . research and development items much higher, and they will be funded accordingly."

As to the past and present: In 1976 the federal outlay for graduate and professional students alone was more than $1.6 billion.

And last fiscal year total federal support for all of higher education amounted to more than $8.5 billion, of which the Office of Education contributed $2.7 billion.

For fiscal year 1978, OE anticipates spending $3.1 billion for higher education. This comes through three sources:

- The Guaranteed Student Loan Program,
- The National Direct Student Loan Program, and
- The College Work-Study Program.

And we have a number of fellowship programs administered by the Office of Education:

- Mining Fellowships,
- Public Service Fellowships,
- Indian Fellowships,
- Bilingual Education Fellowships,
- Handicapped Education Fellowships,
- Vocational Education Fellowships.

Also, we have recently introduced a graduate fellowship program for minorities and have earmarked approximately $3 million for that act.

There is also, as you well know, support for graduate education through other agencies, including the GI Bill, the National Institutes of Health, and the National Science Foundation.

- In 1976, those three federal sources alone accounted for more than one-half billion dollars in aid to approximately 200,000 graduate students.
- There is support, too, for scholars and artists in the National Endowments for the Arts and the Humanities.
- In the case of the NEH, for instance, of its total budget of $80 million, some $37 million is in grants and awards to individuals associated with higher education or directly to institutions of higher learning.

One further point:

- In order to stimulate our international concerns, the Office of Education will give vigorous new backing to the Foreign Language and Area Studies program, and we will push for an increased budget.
- And in that regard the President has asked me to organize with Congress a distinguished new commission comprised of academic specialists and others to stimulate our Foreign Language and Area Studies programs—nationwide.

While looking for ways to promote excellence I also wish to emphasize our research libraries. There is no conceivable way for great scholarship and great research to be sustained in this Nation without great libraries, and yet our lack of support for this precious resource has been scandalous. I intend to support our libraries.

- For the first time we have an authorized budget allowance of $5 million to provide grants to strengthen our great research libraries all across the land.
- This is only the beginning, to be sure, but I am convinced a new milestone has been reached.

One more encouraging development should be noted. For fiscal year 1978, the National Institute of Education's budget has been increased by 28.6 percent.

A sizeable portion of the $90-million total has been allocated to research on learning, teaching, and educational managment and organization. And many of the institutions represented at this annual meeting are currently involved in those important projects. And we intend to push vigorously for major increases for NIE for fiscal year 1979.

I introduce a word of caution here. I cannot promise major budget increases in every category directly or indirectly supporting graduate education. This is unrealistic. I *can*, however, pledge to you that this Administration believes deeply in the intellectual enterprise and that we understand the essential role of graduate education in this Nation. I intend to fight vigorously for the support of those programs that will promote the scholarship and research which are so essential to our future.

VI

A few years ago this Council of Graduate Schools published a most remarkable report entitled "Scholarship for Society."

In one of its most persuasive concluding statements the panel said:

> "If the terms 'tradition,' 'preservation of values,' and 'cultural heritage' are worn, the deeds of mind and imagination to which they point are not. Ten thousand things difficult and beautiful in art and science—these continue to be passed along to the future because institutions of advanced knowledge have continued to commit themselves, despite numberless beleagurements, to belief in their importance for man's moral and intellectual future."
>
> And certainly, when all is said and done, graduate education is not interested in laboratories or libraries or books alone. In the end we seek to develop within each student a special blend of intellectual sophistication and artistic sensitivity which might be called the educated heart.
>
> This term—the educated heart—means to me a reverence for natural and human life and a respect for excellence.

The educated heart means:

- an appreciation of beauty,
- a tolerance of others,
- a reaching for mastery without arrogance,
- a courtesy toward opposing views,
- a dedication to fairness and social justice,
- an adherence to integrity and precision in thought and speech,
- an openness to change,
- and a love for graceful expression and audacious intellect.

These are lofty—and, some would say, old fashioned—goals. And yet I am confident that as we push vigorously for excellence in education at every level this dream can be fulfilled.

Thank you very much for your splendid leadership and thanks again for inviting me to share these thoughts with you today.

I wish you well.

DISCUSSION

Eastman N. Hatch

There were three questions from the audience following Dr. Boyer's address. Briefly stated, these were as follows: one asked where the minorities and women who get Ph.D.'s are going to find employment; another asked about the status of a cabinet position for a Department of Education, and the third inquired about an advisory council on education.

With regard to employment of Ph.D.'s, Dr. Boyer in his response spoke to the general problem of employment of Ph.D's regardless of whether or not they belonged to classes of racial minorities or women. One option being considered at the federal level is whether or not funding should be aimed at experimenting with retraining or reeducating or redirecting training in order to experiment with ways for faculty to move into some of the areas that seem to be growth areas. He pointed out that the need for trained intelligence is not diminishing and the urgency for scholarship is not diminishing, yet we are defining our future in terms of a constrained pool at a diminished need. He feels that the solution may come from a realization that the dilemma has to do with the way our disciplines have designed their structures and the way new talents have been trapped. The broader question which should be asked is how does the trained resource (i.e., the Ph.D's) begin to flow into the fundamental social questions?

With regard to the question of whether or not the U.S. Department of Health, Education, and Welfare would be reorganized, Dr. Boyer responded that the issue is still being considered and that he thought President Carter will be making the decision before long. He indicated that there are some in education who feel that education is too crucial—too significant in economic terms to be buried or diminished organizationally. The other point of view, which is supported by Secretary Califano, is that this is not the time to separate our social functions, but in fact institutions are probably crippled today because they are so fragmented. Dr. Boyer stated that he felt that education does need to have a certain organizational clean-up. There is a need to look carefully at how it is structured. He believes that some changes can be made even within H.E.W. that would enhance and get toward the objectives. The question which should be asked, according to Dr. Boyer, is what are we trying to achieve and how much can be achieved in the present organization?

How many, if any, of these goals would require a separate department? Dr. Boyer believes that quite a few goals for education can be achieved, but with difficulty, within H.E.W.

He stated he found a very open climate for education in Washington. He is strongly in agreement with Secretary Califano in his commitment to action and his absolute disgust with red tape and silliness.

The third question regarding the status of an advisory council on education was answered by saying that he did not know the advisory council on education was a fact.

Report on the Council of Graduate Schools—Graduate Record Examinations Board 1977-78 Survey of Graduate Enrollment*

Part I

A. Leslie White
Asst. Program Director, GRE
Educational Testing Service
November 30, 1977

Introduction

As a result of the difficulty of obtaining accurate information on graduate enrollments, and particularly trends in enrollments, the GRE Board and the Council of Graduate Schools began five years ago to conduct an annual series of surveys of enrollment of the membership of the Council of Graduate Schools in the United States. The Council membership consists of some 359 graduate institutions who grant either the master's or doctorate as the highest degree. The members of the Council grant 99% of the earned doctorates and 85% of the master's degrees awarded.

This year's survey, like those of previous years, is divided into two sections, the first of which was distributed in the early fall of 1977 with a request that results be returned no later than October 28, 1977. This report provides the results of the first questionnaire mailing; it is anticipated that the results of the second questionnaire mailing will be available early in the spring of 1978.

Sample Description

Survey questionnaires were sent to each of the 359 graduate schools which are members of CGS. A total of 304 questionnaires were returned for an 85% response rate, an indication of the continued cooperation of member graduate schools. Since the primary purpose of the questionnaire was to develop comparative data between 1976 and 1977, responses to questions were included in the analysis only when data were supplied for both years. Thus, the effective response rate per question will vary from a high of 85% for the overall sample to a low of 74% for the question concerning applications. While this variability is probably to be expected, and is smaller than that found in previous years due to an increased effort to have -0- entered where appropriate, it does make comparisons across some questions of restricted value.

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*For reference purposes, this report is also issued as "CGS Communicator Special Report #13, December, 1977."

Comparison of Usable Sample and Base Population

	Base		*Usable Sample*		*% (sample of each population subgroup)*
	Number	*Percent*	*Number*	*Percent*	
Total Institutions					
Public	242	67%	205	67%	85%
Private	117	33%	99	33%	85%
Total	359	100%	304	100%	85%
Master's Highest Degree					
Public	82	23%	70	23%	85%
Private	27	7%	25	8%	93%
Sub-total	109	30%	95	31%	87%
Ph.D. Highest Degree					
Public	160	45%	135	45%	84%
Private	90	25%	74	24%	82%
Sub-total	250	70%	209	69%	84%

Continued care should be exercised in attempting to compare results of this year's survey with published results of last year's survey insofar as 1976 data reported in the current survey may differ from 1976 data reported last year for several reasons. First, although the questionnaires and definitions remain unchanged from last year's survey, the actual number of institutions responding decreased by 2.4% and the specific institutions responding in 1977 were not always identical to those responding in 1976. Second, some institutions noted that the data for 1976 which they were able to provide for this year's survey were different from, and better than, the 1976 data which they provided last year. Finally, there was in an increase in CGS membership (15 institutions or 4%) and a decrease both in the number of respondents and in the response rate (85% this year as compared with 91% last year). Despite these limitations, the overall obtained sample (i.e., those submitting usable questionnaires on time) is highly representative of the total CGS population.

Comparisons of number and percentages of the available population and sample are shown above; it should be noted that "Master's Highest Degree" refers, throughout this report, only to those institutions for which the master's degree is, in fact, the highest degree awarded. Data for these institutions do not reflect master's degrees offered by institutions wich also offer the doctorate.

The percentage shown in the table on page 2—and in Tables 1 through 8 at the end of this report—show response rate based on the number of institutions in CGS: e.g., the 304 institutions providing responses to this survey represent 85% of the CGS institutions and an 85% response rate is noted. Since the sample of institutions with usable data becomes less complete as the complexity of the questions or the difficulty of obtaining the data increases, the number of institutions providing usable data and the response rate that number represents are given for each question in the data presentation.

In addition, several users of this report have expressed an interest in the proportion of total CGS graduate school enrollment which the responding institutions represent and these figures, while approximate, are provided in a footnote to each table. Based upon the results of this year's survey, combined with additional data from the *Graduate Programs and Admissions Manual*, one may estimate the 1976 total graduate school enrollment for CGS members at approximately 830,000. Using this estimate, it is then possible to report that the 304 institutions which responded to this year's survey represent an 85% response rate (based on percentage of CGS institutions) and also accounted for approximately 83% of the 1976 total graduate enrollment at CGS institutions. This latter figure is created by taking the 1976 total enrollment reported this year (687,847) and dividing by 830,000. For subsequent questions, a similar computation has been carried out, removing from the 687,847 the reported total graduate enrollment of each institution which failed to provide a usable response to the question.

Results

The results of the survey are displayed in Tables 1 through 8. The tables present the number of respondents with usable data to each question (i.e., data for both years and for all parts of the question), the percentage that number represents of the total group or of the subgroup, e.g., public, the total number of students reported each year and the percentage change from 1976 to 1977. All data are presented by public, private, and total. In addition, Tables 1 through 4 also present data for institutions classified by means of the Educational Directory, Part 3, in terms of the highest degree awarded. These categories are: Public-Master's Highest; Private-Master's Highest; Public-Doctorate Highest; and Private Doctorate Highest. This additional breakdown was not applied to later questions because it was not felt to be particularly important or because the differences were too small to affect the overall results.

Finally, all data were summarized by size of the responding graduate school, although these summaries do not apear in the tables presented. As with last year's report, this report bases size categories on quartile ranges by institutional type drawn from Part I of a prior survey. Thus, each size category—ranging from "1" for the smallest institutions to "4" for the largest institutions—will contain approximately 25% of all institutions of one type, facilitating meaningful comparisons of institutions by size. Size categories used in this report, by institutional type, are shown on page 4; results based on these size categories are noted in the following discussion, where appropriate.

Total Graduate School Enrollment for
Size Categories, by Institutional Type
(Each size category contains aproximately 25% of all
institutions of that institutional type)

	(smallest) Category 1	Category 2	Category 3	*(largest)* Category 4
Public-Master's Highest Degree	0-900	901-1400	1401-2500	over 2500
Private-Master's Highest Degree	0-250	250-600	601-900	over 900
Public-Ph.D. Highest Degree	0-1200	1201-2600	2601-4100	over 4100
Private-Ph.D. Highest Degree	0-800	801-1400	1401-2300	over 2300

Discussion

Table 1—Total enrollment this year has had a small increase for the institutions reporting. In total, the increase was 1,439, a 0.2% increase above last year. The only decrease was at the public master's degree institutions where the decline was 1.6%. Viewed in terms of size categories, private master's institutions experienced a decline in all but category 4 where there was a slight (2.6%) increase. Interestingly, at public Ph.D. institutions the only decline (5.5%) was in size 1.

Table 2—Total first-time enrollments have increased slightly (1.1%). The largest gain (2.7%) occurred in the public master's degree institutions. The only decline (2.1%) was found in the private master's degree institutions. Although there are no patterns when examining the size categories, the private Ph.D. institutions show the largest reduction (5.9%) in category 3 with a similar increase in category 4 (5.1%).

Table 3—Consistent with last year, the response rate for this question was the lowest of all items (74%). By institutional type both the public MA and Private Ph.D. institutions declined by 0.4%. At the public Ph.D. institutions the loss was slightly larger (2.3%). Looking at the size categories with the exception of the public Ph.D. institutions, the smallest 3 categories showed declines of about 5%. The only increase at the public Ph.D. institutions occurred in category 3.

Table 4—The number of graduate assistants (service required) increased in all but the public master's degree institutions which reported a decrease (2.3%). The largest increase (9.5%) also occurred in the private MA institutions. With 3 exceptions, all size categories increased. Public MA institutions declined in all sizes. The largest growth appears in size 1 of the private master's degree institutions.

Table 5—The number of graduate fellows (non-service required) showed a small increase (1.7%) over last year. The only decline occurred at the private MA institutions where the percentage decrease was large (41.2%) but not very significant because the numbers of fellowships were small and the decreases primarily reflect dramatic declines at only two schools.

Table 6—The table displays a breakdown of full- and part-time student enrollment for those institutions reporting. The report indicates increased total enrollment and additional increase in the number of part-time students (61%) at all but the private MA institutions where a slight (1.0%) loss occurred. Both full-time and part-time enrollments have increased but the part-time enrollment has increased more than full-time. By size there is little variance over last year except in category 2 of the private master's degree institutions where we find a 7% shift in full- and part-time enrollment; full-time enrollment is up, part-time enrollment is down.

Table 7—The number of master's degrees awarded are up at all institutions with a total increase of 2.4%. The public MA institutions made the best gains (7.5%). Looking at the sizes, all of the larger institutions experienced a slight to moderate increase.

Table 8—Consistent with prior years the final table shows a decline (3.0% in the total number of doctoral degrees awarded at both public (2.9%) and private (3.3%) institutions. In all but size 3 of the public Ph.D. institutions where a moderate increase is noted (2.5%) there is a continued downward trend.

Conclusions

Although the first part of the CGS-GRE Board Survey of Graduate School Enrollment did not receive the hoped for number of responses from participating institutions, the data that were generated proved quite valuable in ascertaining short-term trends in American graduate education.

Slight change is perhaps the best description of the overall results of this year's survey. Graduate school enrollment and full/part-time enrollment increased by less than 1%. Larger (1-2%) but, again, relative slight changes occurred with applications (−1.6%), first-time enrollments (+1.1%) and fellowships (+1.7%). It is important to note that the increase in fellowships is a departure from recent trends. The largest growth is seen in the number of master's degrees awarded, and more specifically, at the public institutions. Consistent with past trends the number of doctoral degrees continues to decline.

TABLE 1

Total Graduate School Enrollment by Type of Institution*

	Number	*%***	*1976*	*1977*	*% Change*
Master's Highest					
Public	70	85%	142,806	140,510	1.6% decrease
Private	25	93%	21,127	21,316	0.9% increase
Sub-Total	95	87%	163,933	161,826	1.3% decrease
Ph.D. Highest					
Public	135	84%	396,803	399,662	0.7% increase
Private	74	82%	127,111	127,798	0.5% increase
Sub-Total	209	83%	523,914	527,460	0.6% increase
Total Institutions					
Public	205	85%	539,609	540,172	0.1% increase
Private	99	85%	148,238	149,114	0.6% increase
Total	304	80%***	687,847	689,286	0.2% increase

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*For purposes of this survey, institutions were asked to include all students considered as registered in the graduate school, including education, engineering, social work, medical and business programs leading to MA/MS or Ph.D., Ed.D., or other doctorates.

**Percentage figures are the number of institutions responding to this question as a percentage of the number available in the total group. For example, 70 Public Master's Highest Degree institutions responded out of a possible 82 such institutions in the CGS membership for an 85% response rate for that group of institutions.

***Based on the computations described under Sample Description on page 3, the 304 institutions responding to this question represent 85% of the CGS institutions and accounted for approximately 83% of the 1976 total student enrollment at CGS institutions.

TABLE 2

First-Time Graduate Enrollment by Type of Institution

	Number	*%*	*1976*	*1977*	*% Change*
Master's Highest					
Public	63	77%	28,975	29,769	3.7% increase
Private	22	81%	5,642	5,526	2.0% decrease
Sub-Total	85	78%	34,617	35,295	1.9% increase
Ph.D. Highest					
Public	129	81%	95,946	96,487	0.6% increase
Private	70	78%	34,992	35,639	1.8% increase
Sub-Total	199	79%	130,938	132,136	0.9% increase
Total Institutions					
Public	192	79%	124,921	126,256	1.1% increase
Private	92	78%	40,634	41,165	1.3% increase
Total	284	80%*	165,555	167,421	1.1% increase

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*Based on the computations described under Sample Description on page 3, the 284 institutions responding to this question represent 80% of the CGS institutions and accounted for approximately 77% of the 1976 total student enrollment at CGS institutions.

TABLE 3

Number of Applications for Graduate Study

	Number	*%*	*1976*	*1977*	*% Change*
Master's Highest					
Public	61	74%	61,388	61,125	0.4% decrease
Private	18	67%	9,304	9,412	1.2% increase
Sub-Total	79	72%	70,692	70,537	0.2% decrease
Ph.D. Highest					
Public	118	74%	314,882	307,525	2.3% decrease
Private	67	74%	133,473	132,914	0.4% decrease
Sub-Total	185	74%	448,355	440,439	1.8% decrease
Total Institutions					
Public	179	74%	376,270	368,650	2.0% decrease
Private	85	73%	142,777	142,326	0.3% decrease
Total	264	74%*	519,047	510,976	1.6% decrease

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*Based on the computations described under Sample Description on page 3 the 264 institutions responding to this question represent 74% of the CGS institutions and accounted for approximately 71% of the 1976 total student enrollment at CGS institutions.

TABLE 4

Number of Graduate Assistants (Service Required)

	Number	*%*	*1976*	*1977*	*% Change*
Master's Highest					
Public	66	80%	5,703	5,572	2.3% decrease
Private	25	93%	484	530	8.7% increase
Sub-Total	91	83%	6,187	6,102	1.4% decrease
Ph.D. Highest					
Public	127	79%	83,274	85,734	2.9% increase
Private	67	74%	17,608	18,082	2.6% increase
Sub-Total	194	78%	100,882	103,746	2.8% increase
Total Institutions					
Public	193	80%	88,977	91,306	2.6% increase
Private	92	79%	18,092	18,542	2.4% increase
Total	285	80%*	107,069	109,848	2.5% increase

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*Based on the computations described under Sample Description on page 3, the 285 institutions responding to this question represent 80% of the CGS institutions and accounted for approximately 76% of the 1976 total student enrollment at CGS institutions.

TABLE 5

Number of Graduate Fellows (Non-service Required)

	Number	*%*	*1976*	*1977*	*% Change*
Public	183	76%	13,732	13,834	0.7% increase
Private	88	75%	11,722	12,050	2.7% increase
Total	271	76%*	25,454	25,884	1.7% increase

TABLE 6

*Full-time–Part-time** Total Enrollment*

			1976				1977			
			Full-time		Part-time		Full-time		Part-time	
	Number	%	Number	%	Number	%	Number	%	Number	%
Public	192	79%	194,219	39%	307,447	61%	193,531	38%	311,638	62%
Private	95	81%	60,565	43%	80,484	57%	59,875	42%	82,489	58%
Total	287	80%***	254,784	40%	387,931	60%	253,406	39%	394,127	61%

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*Based on the computations described under Sample Description on page 3, the 271 institutions responding to this question represent 76% of the CGS institutions and accounted for approximately 72% of the 1976 total student enrollment at CGS institutions.

**Institutions were directed to apply their own institutional definitions to "part-time" and "full-time."

***Based on the computations described under Sample Description on page 3, the 287 institutions responding to this question represent 80% of the CGS institutions and accounted for approximately 78% of the 1976 total student enrollment at CGS institutions.

TABLE 7

Number of Master's Degrees

	Number	*%*	*1975-76*	*1976-77*	*% Change*
Public	205	85%	128,050	131,654	2.7% increase
Private	98	84%	34,038	34,356	0.9% increase
Total	303	85%*	162,088	166,010	2.3% increase

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* Based on the computations described under Sample Description on page 3, the 303 institutions responding to this question represent 85% of the CGS institutions and accounted for approximately 82% of the 1976 total student enrollment at CGS institutions.

TABEL 8

Number of Ph.D. Degrees

	Number	*%*	*1975-76*	*1976-77*	*% Change*
Public	136	85%	16,625	16,143	2.9% decrease
Private	73	81%	6,915	6,690	3.2% decrease
Total	209	84%*	23,540	22,833	3.0% decrease

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* Based on the computations described under Sample Description on page 3, the 209 institutions resonding to this question represent 84% of the CGS doctoral institutions.

The Constitution of the Council of Graduate Schools in the United States

1. Name

This organization shall be called the Council of Graduate Schools in the United States.

2. Purpose

The Council is established to provide graduate schools in the United States with a comprehensive and widely representative body through which to counsel and act together.

Its purpose is the improvement and advancement of graduate education. The purview of the Council includes all matters germane to this purpose. The Council shall act to examine needs, ascertain best practices and procedures, and render assistance as indicated; it may initiate research for the furthering of the purpose. It shall provide a forum for the consideration of problems and their solutions, and in meetings, conferences, and publications shall define needs and seek means of satisfying them in the best interests of graduate education throughout the country. In this function the Council may act in accordance with the needs of the times and particular situations to disseminate to the public, to institutions, to foundations, to the federal, state, and local governments, and other groups whose interest or support is deemed of concern, information relating to the needs of graduate education and the best manner of satisfying them

In the analysis of graduate education, in the indication of desirable revision and further development, in the representation of needs and all other functions related to effecting its purpose, the Council not only shall be free to act as an initiating body, but it shall assume direct obligation for so doing.

3. Membership

Membership in the Council of Graduate Schools in the United States is open to those institutions of higher education in the United States which are significantly engaged in scholarship, graduate education, and the preparation of students for advanced degrees. In joining the Council of Graduate Schools in United States, a new member should be aware that the Council is devoted to excellence in graduate education as interpreted by occasional position statements outlining changing philosophies, policies, and procedures of graduate education. In addition, prospective members shall be approved to offer graduate work by the appropriate regional accrediting association and shall have awarded at least thirty master's degrees or ten doctoral degrees, or a combination thereof, in at least three distinct fields or disciplines within the three-year period immediately prior to the date of application. Each applications for membership shall contain evidence as to these qualifications in a form prescribed in the Bylaws.

4. Voting Power

In all activities of the Council, each member institution shall have one vote.

More than one representative of any institution may attend the meeting of the Council, but the member's vote shall be cast by the individual designated as the principal representative of the member by the chief administrative officer of the member institution.

5. Officers and Executive Committee

The officers of the Council and the Executive Committee shall be a Chairman, a Chairman-Elect, and the immediate Past Chairman, each serving for a term of one year. In the absence of the Chairman, the Chairman-Elect shall be the presiding officer of the Executive Committee and the Council.

There shall be an Executive Committee of twelve voting members, composed of the Chairman, the Chairman-Elect, the Past Chairman and nine members-at-large. Three members-at-large shall be elected by the Council at each Annual Meeting for terms of three years each, beginning immediately after the Annual Meeting.

The Chairman-Elect, chosen by the Executive Committee from its own past or present membership, shall serve in that capacity for one year. The following year, he will assume the office of Chairman, and the following year, the office of Past Chairman.

Each voting member of the Executive Committee must be the principal representative of a member of the Council and none may serve for two consecutive full terms.

If the Chairman is unable to continue in office, the Chairman-Elect shall succeed immediately to the chairmanship, and the Executive Committee shall choose a new Chairman-Elect.

Any vacancies occurring among the membership-at-large of the Executive Committee shall be filled by the Executive Committee until the next Annual Meeting, at which time the Council shall elect a replacement for the balance of the term.

6. Executive Officers

The chief executive officer of the Council shall be a President, who shall be a salaried officer, appointed by the Executive Committee and serving at its pleasure. The President shall serve as an *ex-officio* member of the Executive Committee without a vote.

7. Duties and Powers of the Executive Committee

In addition to the duties and powers vested in the Executive Committee elsewhere in this Constitution, the Executive Committee may, specifically: employ such staff and establish such offices as may seem necessary; incorporate; undertake itself, or through its agents, to raise funds for the Council and to accept and expend monies for the Council; take initiative and act for the Council in all matters including matters of policy and public statement except where limited by this Constitution or by actions of the Council.

8. *Committees*

In addition to the Executive Committee, there shall be (1) a Nominating Committee, (2) a Committee on Membership, whose members shall not be members of the Executive Committee, and (3) such other standing committees as may be established by the Executive Committee.

Except for the Nominating Committee, all standing committees and *ad hoc* committees shall be appointed by the Chairman with the advice and consent of the Executive Committee.

The Nominating Committee shall consist of five members of whom three shall be elected each year by the Council at its annual meeting, and two shall be the members-at-large of the Executive Committee who are completing their terms. The Chairman shall be elected by the Committee.

At least two weeks before each annual meeting of the Council, the Nominating Committee shall propose to the members of the Council one nominee for each member-at-large position of the Executive Committee to be filled and three nominees for members of the Nominating Committee. These nominations shall be made only after suggestions accompanied by supporting vitae have been solicited from the membership-at-large.

At the annual business meeting of the Council, additional nominees may be proposed from the floor. The election will then be held, and the nominees receiving the largest number of votes for the positions to be filled shall be declared elected.

9. *Meetings*

The Council shall hold an Annual Meeting at a time and place determined by the Executive Committee. The Council may meet at other times on call of the Executive Committee.

The Executive Committee shall be responsible for the agenda for meetings of the Council. Reports and proposals to be submitted for action by the Council shall be filed with the Executive Committee before they may be submitted for general discussion by the Council. No legitimate report or proposal may be blocked from presentation to the Council, but action on any proposal may not be taken until the Executive Committee has had an opportunity to make a recommendation.

In matters not provided for in this Constitution, parliamentary procedure shall be governed by *Robert's Rules of Order, Revised.*

10. *Limitation of Powers*

No act of the Council shall be held to control the policy or line of action of any member institution.

11. Dues

Membership dues shall be proposed by the Executive Committee and must be approved by the majority of the membership after due notice.

12. Amendments

Amendments to this Constitution may be proposed by the Executive Committee or by written petition of one-third of the members. However they originate, proposals for amendments shall be received by the Executive Committee and forwarded with recommendations to the members, in writing, at least ninety days before the meeting at which they are to be voted upon or before formal submission to the members for a mail ballot. To be adopted, proposed amendments must receive the approval of a two-thirds majority of the members voting at the announced meeting or on the designated mail ballot.

13. Bylaws

Bylaws may be established by the Executive Committee at any regular or special meeting, subject to ratification by a simple majority vote of the Council at the next Annual Meeting.

Bylaws

1. In conformity with Article 6 of the Constitution, the President of the Council of Graduate Schools in the United States shall be paid an annual salary to be determined by the Executive Committee plus such perquisites as may be necessary for the proper conduct of the office and such travel as may be deemed essential. The President is authorized to employ such additional personnel as is, in his judgment, necessary for the proper conduct of the office, to establish bank accounts in the name of the Council of Graduate Schools in the United States, and to draw checks and invest monies against the Council's account or accounts, subject to an annual audit of the books of the Council by a Certified Public Accountant and approval by the Executive Committee.
2. The Riggs National Bank of Washington, D.C., is hereby designated a depositary for the funds of this association and the said bank is hereby authorized and directed to pay checks and other orders for the payment of money drawn in the name of this association when signed by the President and the said shall not be required in any case, to make inquiry respecting the applications of any instrument executed in virtue of this resolution, or of the proceeds therefrom, nor be under any obligation to see in the application of such instruments of proceeds.
3. In the event of the dissolution of the Council of Graduate Schools, all then existing assets of the Council shall be distributed in equal parts to the institutions which will at the time be members of the Council.

4. After January 1, 1969, the fiscal year of the Council of Graduate Schools in the United States will correspond to the calendar year. (Prior to this date, the fiscal ran from April 1 through March 31.)
5. In the event of the death or disability of the President of the Council, the Chairman shall immediately call a meeting of the Executive Committee to select an Acting President, who shall assume the responsibilities of the President, as they are specified in Article 6 of the Constitution and in Bylaws 1 and 2, until the appointment of a new President.
6. Membership applicants responding to Section 3 of the Constitution are expected to furnish statements endorsed by the chief executive officer and the chief graduate officer of their institution. These statements should include information as to the following:
    a) The institution's accreditation for graduate work as determined by the appropriate regional accrediting association.
    b) The number of graduate degrees awarded in the three years immediately preceding the application for each applicable field or discipline in which graduate degrees are awarded.
    c) A general description of the criteria used in determining faculty participation in graduate programs, i.e., the level of training and the scholarly/creative productivity of the faculty members in the institution's graduate program.
    d) The degree of centrality of graduate education to the nature and purposes of the institution as evidenced by its budgetary commitment to graduate programs, the existence of special facilities or resources in specific support of graduate education, and, in the case of appointments, promotion and tenure, the degree of importance placed on faculty contributions to graduate and scholarly/creative work.
    e) The extent of the institution's acceptance of existing Council policy statements setting forth standards for the organization of graduate study.

Procedural Policies

1. Annual meetings of the Council shall be held during or near the first week of December.
2. If a member resigns, it must reapply for admission in the normal way if it wishes to resume membership.
3. Membership or affiliation, with or without vote, of non-academic institutions, associations, or foundations is undesirable.
4. Institutions accepted to membership in any given year are required to pay prorated dues on a quarterly basis for that fiscal year.

The Council of Graduate Schools in the United States

Member Institutions

Abilene Christian University
Adelphi University
Air Force Institute of Technology
Alfred University
*American University
Andrews University
Angelo State University
Appalachian State University
Arizona State University
Arkansas State University
Atlanta University
Auburn University
Ball State University
Baylor College of Medicine
Baylor University
*Boston College
Boston University
Bowling Green State University
Bradley University
*Brandeis University
Bridgewater State College
Brigham Young University
Brooklyn College of the City University of New York
*Brown University
*Bryn Mawr College
*California Institute of Technology
California State College, Bakersfield
California State Polytechnic University, Pomona
California State University, Chico
California State University, Fresno
California State University, Fullerton
California State University, Hayward
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
*Carnegie-Mellon University
*Case Western Reserve University
*Catholic University of America
Central Michigan University
Central Missouri State University
Central Washington University
Chicago State University
The City College of the City University of New York
The City University of New York
*Claremont Graduate School
*Clark University
Clarkson College of Technology
Clemson University
Cleveland State University
College of Medicine and Dentistry of New Jersey
College of Saint Rose
College of William and Mary
Colorado School of Mines
Colorado State University
*Columbia University
Connecticut College
Coppin State College
*Cornell University
Creighton University
Dartmouth College
DePaul University
Drake University
Drexel University
*Duke University
Duquesne University
East Carolina University
East Tennessee State University
East Texas State University
Eastern Illinois University
Eastern Kentucky University
Eastern Michigan University
Eastern Washington University
*Emory University
Emporia State University
Fisk University
Fitchburg State College
Florida Atlantic University
*Florida State University
Florida Technological University

*Fordham University
Fort Hays State University
Framingham State College
George Mason University
George Peabody College for Teachers
*George Washington University
*Georgetown University
Georgia Institute of Technology
Georgia Southern College
Georgia State University
Governors State University
Hahnemann Medical College
and Hospital of Philadelphia
*Harvard University
Hebrew Union College
Hofstra University
Holy Names College
Howard University
Idaho State University
*Illinois Institute of Technology
Illinois State University
Immaculate Heart College
Indiana State University
Indiana University
*Indiana University of Pennsylvania
*Iowa State University
Jackson State University
James Madison University
John Carroll University
*Johns Hopkins University
*Kansas State University
Kent State University
Lamar University
*Lehigh University
Loma Linda University
*Louisiana State University
Loyola College
Loyola Marymount University
*Loyola University of Chicago
Mankato State University
Marquette University
Marshall University
*Massachusetts Institute of Technology
McNeese State University
Medical College of Georgia
Medical College of Pennsylvania
Medical College of Wisconsin
Medical University of South Carolina
Memphis State University
Miami University
*Michigan State University
Michigan Technological University
Middle Tennessee State University
Midwestern State University
Mississippi College
Mississippi State University
Montana State University
Montclair State College
Morgan State University
Murray State University
Naval Postgraduate School
New Jersey Institute of Technology
New Mexico Institute of Mining
and Technology
New Mexico State University
*New School for Social Research
*New York University
Niagara University
North Carolina Central University
*North Carolina State University
at Raleigh
North Dakota State University
North Texas State University
Northeast Louisiana University
Northeastern Illinois University
Northeastern University
Northern Illinois University
Northwestern State University
of Louisiana
*Northwestern University
Nova University
Oakland University
*Ohio State University
Ohio University
*Oklahoma State University
Old Dominion University
*Oregon State University
Pace University
Pan American University
*Pennsylvania State University
Pepperdine University
Pittsburg State University
Polytechnic Institute of New York
Princeton University
Purdue University

Queens College of the City University of New York
Rensselear Polytechnic Institute
Rhode Island College
Rice University
Rockefeller University
Roosevelt University
Rutgers, The State University
St. Cloud State University
St. John's University
Saint Louis University
St. Mary's University
Samford University
San Diego State University
San Francisco State University
San Jose State University
Sangamon State University
Seattle University
Seton Hall University
Shippensburg State College
South Dakota State University
Southeast Missouri State University
Southern Illinois University at Carbondale
Southern Illinois University at Edwardsville
Southern Methodist University
Southern University and A&M College
Southwest Missouri State University
Southwest Texas State University
Stanford University
State University of New York at Albany
State University of New York at Binghamton
State University of New York at Buffalo
State University of New York-Downstate Medical Center
State University of New York at Stony Brook
State University of New York College at Fredonia
State University of New York College at Oneonta
State University of New York College at Plattsburgh
Stephen F. Austin State University
Stetson University
Stevens Institute of Technology
*Syracuse University
*Temple University
Tennessee State University
Tennessee Technological University
*Texas A&M University
Texas Christian University
Texas Southern University
Texas Tech University
Texas Woman's University
Thomas Jefferson University
Towson State University
Trenton State College
Trinity University
Tufts University
*Tulane University
United States International University
Utah State University
*Vanderbilt University
Villanova University
Virginia Commonwealth University
*Virginia Polytechnic Institute
Virginia State College
Wagner College
Wake Forest University
*Washington State University
Washington University
*Wayne State University
Wesleyan University
West Chester State College
West Texas State University
West Virginia College of Graduate Studies
*West Virginia University
Western Carolina University
Western Illinois University
Western Kentucky University
Western Michigan University
Western State College of Colorado
Western Washington University
Westfield State College
Wichita State University
Winthrop College
Worcester Polytechnic Institute
Worcester State College
Wright State University

Xavier University
*Yale University
Yeshiva University
Youngstown State University
University of Akron
*University of Alabama
University of Alabama in Birmingham
University of Alabama in Huntsville
*University of Arizona
University of Arkansas
University of Baltimore
University of Bridgeport
*University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Riverside
University of California, San Diego
University of California Santa Barbara
*University of Chicago
*University of Cincinnati
*University of Colorado
University of Connecticut
University of Dayton
*University of Delaware
*University of Denver
University of Detroit
University of the District of Columbia
University of Evansville
*University of Florida
University of Georgia
University of Hawaii
University of Health Sciences, The Chicago Medical School
University of Houston
University of Idaho
University of Illinois at Chicago Circle
University of Illinois at the Medical Center
*University of Illinois at Urbana-Champaign
*University of Iowa
*University of Kansas
*University of Kentucky
University of Louisville
University of Lowell
University of Maine
*University of Maryland
University of Massachusetts
University of Miami
*University of Michigan
University of Minnesota
University of Mississippi
University of Missouri, Columbia
University of Missouri, Kansas City
University of Missouri, Rolla
University of Missouri, St. Louis
University of Montana
*University of Nebraska
University of Nevada
University of Nevada, Las Vegas
University of New Hampshire
University of New Haven
University of New Mexico
University of New Orleans
*University of North Carolina, Chapel Hill
University of North Carolina, Charlotte
University of North Carolina, Greensboro
*University of North Dakota
University of Northern Colorado
University of Northern Iowa
*University of Notre Dame
*University of Oklahoma
*University of Oregon
University of the Pacific
*University of Pennsylvania
*University of Pittsburgh
University of Rhode Island
University of Richmond
*University of Rochester
University of San Francisco
University of Santa Clara
University of Scranton
University of South Alabama
University of South Carolina
University of South Dakota
University of South Florida
*University of Southern California
*University of Southern Mississippi

University of Tennessee, Chattanooga
University of Tennessee, Knoxville
University of Tennessee, Martin
University of Tennessee Center
for the Health Sciences
University of Texas at Arlington
*University of Texas at Austin
University of Texas at San Antonio
University of Texas Health Science
Center, San Antonio
University of Texas
Medical Branch, Galveston
University of Toledo
University of Tulsa
*University of Utah
University of Vermont
*University of Virginia
*University of Washington
*University of Wisconsin, Madison
University of Wisconsin, Milwaukee
University of Wisconsin, Oshkosh
*University of Wyoming

*Founding institutions